

# MECHANICAL ENGINEERING

The Monthly Journal Published by The American Society of Mechanical Engineers  
at Easton, Pa. General Offices at 29 West Thirty-ninth Street, New York

Volume 42

December 1920

Number 12

## Secretary's Letter

EVERYONE has just expressed himself at the polls and orally interpreted the election, but has it ever occurred to you that the real determination of the policy of the United States is by the everyday conduct of each individual rather than the periodic casting of a ballot? What is true of the nation with respect to policy and franchise, is equally true of an engineering society.

We have just about completed one year's administration under Major Fred J. Miller as President, and are soon to enter upon a new administration under Mr. E. S. Carman, the President-elect, who is already busying himself with the selection of members of committees and right here is a great opportunity for members to make a new contract with the work of their profession through participation in one of the Society's various activities. Please do not consider it essential to be specifically invited to do this, for the President-elect will welcome offers of assistance or suggestions of men who are available for committee appointments.

It will be discovered that one's satisfaction with his membership in the Society will increase as he engages in the work of the Society.

CALVIN W. RICE, *Secretary*.

## A.S.M.E. COUNCIL NOTES

The Council resumed its sessions at a meeting in New York on October 15. There were present: President, Fred J. Miller; Treasurer, William H. Wiley; Vice-Presidents, Fred. R. Low, John R. Allen, Robert H. Fernald, Dexter S. Kimball, John A. Stevens; Managers, C. Russ Richards, E. C. Fisher, Earl F. Scott; Past-Presidents, I. N. Hollis, D. S. Jacobus; Chairmen of Standing Committees; E. S. Carman, Local Sections; George W. Orrok, Publications; Frank F. Law, Representing Finance; Roy V. Wright, Meetings and Program; E. B. Katte, Professional Sections; Secretary, Calvin W. Rice.

Under the new By-Law the officers-elect were invited, and President-Elect E. S. Carman and Vice-Presidents-Elect L. P. Alford and R. B. Wolf attended. By special invitation C. F. Rand, Chairman of the Engineering Foundation Board, Past-President W. F. M. Goss, and I. E. Moulthrop, A.S.M.E. representatives on the Board, and Mr. A. D. Flinn, Secretary of the Board, were present. Comfort A. Adams, Chairman of the Engineering Division of the National Research Council, was also present.

*Executive Committee.* Actions taken by the Executive Committee of the Council during the summer months were confirmed. The most important of these was the providing for our participation in The Federated American Engineering Societies and our representation at the Organization Meeting of the American Engineering Council to be held in Washington November 18-19.

*Engineering Foundation.* The representatives present explained the work and progress of this movement and announced that the endowment would approximate \$1,000,000 within a year.

Special authorization was given to the officers of our Society to coöperate with the other participating Societies in the plan for increasing the endowment.

*Fortieth Anniversary.* The Council granted a petition of members for a special general meeting of the Society to be held in New York on Friday, November 5, to celebrate the 40th Anniversary of the founding of our organization.

*Standing Committees.* Annual reports of the Standing Committees were received and ordered printed for distribution at the Annual Meeting.

*Budget.* The budget of the Finance Committee, of income and appropriations for the new fiscal year, was received, subject to a few slight modifications to provide for recommendations made by the Joint Finance Committee of the Founder Societies.

*Spring Meeting.* The Society will endeavor to develop this into a Congress of Mechanical Engineers, and will extend invitations to all mechanical engineering societies to send delegates.

## WANTED!

### Names of Members to Serve on Professional Committees

A great many of our membership are well qualified to serve the Society and the profession on its standards and technical committees, but unfortunately are never given an opportunity for the simple reason that their knowledge and experience are not known to the officers of the Society. If you are one of these and are interested in standardization in any of its many phases, write to the Secretary *today* stating the fields in which you are qualified to work.

Standardization of the dimensions of elements in engineering and machines and the formulation of industrial safety codes are receiving ever-increasing attention in the United States. It is fundamentally necessary for the economic progress of engineering and industry that this be so, and our Society has an important part to play in this work. It must, however, do it through the service of its members on committees, a service which brings its rewards to both the Society and the individual.

*Publications.* A special vote of appreciation was extended to the Publications Committee for their development of the publications of the Society, notably MECHANICAL ENGINEERING.

*Professional Sections.* The new By-Law specifying the duties of the Standing Committee on Professional Sections was adopted. The petition of members for a Professional Section on Aeronautics was granted.

*Awards.* The report of the Committee on Awards and Prizes, recommending the following awards, was adopted:

Honorary Membership	Honorable Mention
Life Membership	Scholarships or Fellowships
A.S.M.E. Medal	Junior Medal

Two Student Medals



The complete report will be distributed at the Annual Meeting.

**House.** The House Committee, formerly having charge of the rooms of the Society, was discharged with thanks, and its duties were transferred to the Finance Committee.

**Boiler Code.** Interpretations dated May 24, June 24, and September 24, were approved. These have been published in *MECHANICAL ENGINEERING*. The resignation of D. S. Jacobus from some of the sub-committees was accepted and appointments made in his place.

**Power Test Codes.** The report of the individual committee on General Instructions was received and ordered published in *MECHANICAL ENGINEERING* for discussion.

**Education and Training.** A new Committee on Education and Training to enlarge the Committee on Relations with Colleges and to include the Committee on Education Below College Grade was authorized, and will be appointed by President Miller. The report of the Committee on Education Below College Grade, making valuable recommendations as to the Society's policy in this field was received and will be published.

**Standardization.** The Society accepted for the American Engineering Standards Committee the sponsorship for the standardization of shafting, of flanges and pipe fittings, of width across flats on nuts and bolt heads, and for a safety code for the Mechanical Transmission of Power.

**Research.** John H. Barr was appointed as the Society's representative on the National Research Council. The appointment of George M. Basford as a Trustee of the United Engineering Society was confirmed.

**Joint Finance Committee.** Recommendations for the financing of The Federated American Engineering Societies and of the Engineering Societies Employment Bureau were approved and will be included in the new budget.

**Death of Vice-President Allen.** The Council announces with regret the death of Vice-President Allen. Past Vice-President Julian Kennedy and Sumner B. Ely, Chairman, of the Pittsburgh Section, were appointed to attend the funeral services at Pittsburgh, and Past-President M. E. Cooley and Prof. R. C. Anderson, to attend the services at Ann Arbor, Mich.

**Washington Meeting.** The next meeting of the Council will be held at the New Willard Hotel, Washington, D. C., on November 17 at 6 p.m., in connection with the Organizing Meeting of The Federated American Engineering Societies.

CALVIN W. RICE, *Secretary*.

## Standing Committees on Professional Sections Now Established

The Council has now discharged the Special Committee on Professional Sections and it is superseded by the Standing Committee on Professional Sections, which is now a constitutional committee, composed of the following members:

- H. E. COFFIN, *Aeronautics* (pro tem.)
- F. W. KELLEY, *Cement* (pro tem.)
- L. P. BRECKENRIDGE, *Fuels*
- G. A. ORROK, *Gas Power* (pro tem.)
- L. P. ALFORD, *Management*
- F. O. HOAGLAND, *Machine Shop*
- R. M. GATES, *Materials Handling*
- C. F. HIRSHFELD, *Ordnance* (pro tem.)
- A. D. BAILEY, *Power*
- E. B. KATTE, *Railroads* (Chairman)
- G. H. PERKINS, *Textiles* (pro tem.)

The pro tem. members will be replaced by permanent members as these sections elect their officers. The chairman of the Standing Committee, Mr. Katte, now sits with the Council.

## Ordnance Section to Organize

Colonel C. F. Hirshfeld, member of the Special Committee on Professional Sections, has called the organization meeting of the Ordnance Section to be held in the Council Room at headquarters on Thursday, December 9, at 2 p.m., in connection with the Annual Meeting of the Society. All interested are invited to attend.

## Railroad Section Meeting a Huge Success

The first meeting of a professional section—the Railroad Section—was held on October 22 jointly with the A.S.M.E. Metropolitan Section and the New York Section of the A.I.E.E., in the auditorium of the Engineering Societies Building. The attendance overtaxed its capacity.

The subject was the relative merits of modern steam and electric locomotives, and papers were presented by John E. Muhlfeld, F. H. Shepard, and A. H. Armstrong. These papers, together with the discussion which followed their presentation, are published in Section One of this issue. The meeting was pronounced a decided success and augurs well for similar professional section events in the future.

## Aeronautic Section Petition Granted

The Council at its October meeting granted the petition for the formation of an aeronautic section. The purpose of the section is well explained in the wording of the petition which is here reproduced:

September 27, 1920.

### PETITION FOR AERONAUTIC SECTION

TO THE PRESIDENT AND THE COUNCIL:

Gentlemen:

At a meeting of members of the Society held in Detroit, Michigan, on September 27, it was unanimously resolved to petition the Council for the formation of a Professional Section to be known as the Aeronautic Section and to be inaugurated under the provisions of By-Law B-47.

The purpose of this Section will be to organize the members of the Society, and those who may wish to affiliate with them, who are interested in the science and art of aviation.

There are a number of organizations working in this field, and it is believed that the Society has a place among them. It is recommended that the Section, if authorized, cooperate with these organizations to the mutual development of the art.

This petition is presented in accordance with the action of the Special Committee on Professional Sections taken at its meeting on March 11, 1920, and a copy hereof has been sent to that Committee. 201 members have signified their intention of joining the Section if authorized, and those listed on the attached sheet have signed the petition.

Respectfully,

HOWARD E. COFFIN,  
Member, Special Committee on  
Professional Sections representing  
Aeronautics.

Among others the petition bears the signatures of T. H. Bane, Coker F. Clarkson, James Hartness, M. R. Hutchison, C. F. Kettering, C. E. Lucke, Joseph W. Roe, Elmer A. Sperry, S. W. Stratton, J. G. Vincent, Orville Wright.

## DOINGS OF LOCAL SOCIETIES

### JOINT MEETING AT DALLAS, TEXAS

The Joint Meeting of the Mid-Continent and Houston Sections at Dallas, October 14, 15 and 16, was a gala event for the engineers of the Southwest. The meeting was scheduled during the occasion of the Dallas Fair, which is said to be the greatest attraction of its kind in the southwest.

The Mexican National Exhibit at the Fair, and the presence of the Estado Mayor Presidencial, the finest band in Mexico consisting of 100 pieces, and a party of over 200 Mexican engineers, manufacturers and merchants, furnished an international setting, for the meetings.

The program started with a short business meeting on Thursday the 14th, which was followed by the presentation of professional papers. The members attended the Fair in the afternoon and devoted the evening to banqueting. The morning and afternoon sessions on Friday were devoted entirely to a program of professional papers; and in the evening the members were guests of the Dallas Technical Club at a dinner dance.

Saturday, the closing one of the convention, was spent in jollification—the engineers attending the automobile races at the Fair and a football game between the Universities of Oklahoma and Texas.

The following technical papers were presented at the professional sessions:



LUBRICATING OILS FOR KANSAS INSTITUTIONS, J. P. Calderwood, professor of mechanical engineering, Kansas State Agricultural College, Manhattan, Kan.

EVAPORATION LOSSES FROM CRUDE OIL IN THE MID-CONTINENT FIELD, J. H. Wiggins, asst. engr. Bureau of Mines Experiment Station, Bartlesville, Okla.

STANDARDIZATION OF DRILL-PIPE THREADS, F. L. Scott, Hughes Tool Co., Houston, Tex.

GENERAL DISCUSSION—OIL-FIELD BOILERS.

FLOW OF FLUIDS THROUGH PIPE LINES AND THE EFFECT OF PIPE-LINE FITTINGS, D. E. Foster, of Foster & Gilmore, consulting engineers, Tulsa, Okla. (A continuation of a paper given at the Spring meeting.)

REPORT OF RESEARCH COMMITTEE, P. F. Walker, Dean, School of Engineering, University of Kansas, Lawrence, Kans.

THE MANUFACTURE OF PIPE, Chas. Fitzgerald, engineer for The White Oil Corporation; an address illustrated by moving pictures.

FEDERATED AMERICAN ENGINEERING SOCIETIES, H. P. Porter, supt. of gas, water and construction dept. Gypsy Oil Co., Tulsa, Okla.

HELIUM, Lt-Com. R. G. Walling, U. S. N., Fort Worth, Tex.

CEMENT AND CEMENT MANUFACTURE, Wm. Moehler, general supt. Texas Portland Cement Co., Dallas, Tex.

#### CLEVELAND FELICITATES PRESIDENT-ELECT CARMAN

Sixty members of the Cleveland Section of A.S.M.E. met for dinner at the Hotel Statler, on the evening of Tuesday, October 12 to pay their respects to Major Miller, President of the A.S.M.E., and to celebrate the announcement of the election of E. S. Carman as president of the Society for the coming year. Mr. Herron, chairman of the Cleveland Section, presided. President Miller and Secretary Rice made the trip to Cleveland to officially notify Mr. Carman of the honor which had come to him and which he so richly deserved. "Father" Beahan, a director of the American Society of Civil Engineers, represented the Cleveland Engineering Society and was the speaker of the evening. He felicitated Mr. Carman upon his election and briefly told just why the membership at large had made the choice.

The City of Cleveland was represented by W. E. Davis, Commissioner of Light and Power, who expressed pleasure that so great an honor had been conferred on a Clevelander.

Among the guests present were W. P. Brown, representing the Cleveland Engineering Society, S. E. Doane representing Cleveland Section A.I.E.E., E. P. Roberts, of Akron, F. K. Smith, president Osborn Manufacturing Co., and W. H. Searles, of Elyria.

## Recent Section Meetings

#### AKRON:

October 29. Fuel of the Future, by Professor E. O. Ellenwood, Good-year Tire & Rubber Co.

#### ATLANTA:

November 5. Inspection trip in the afternoon to the Federal Prison. History and Development of the Society, by Earle F. Scott and Dr. J. S. Coon.

November 23. Manufacture of Cotton Goods, by J. T. Wilke, of Atlanta, Ga.

#### BALTIMORE:

November 4. Joint meeting with Engineers' Club of Baltimore. Inspiring Outlook Before American Engineering, by M. L. Cooke, Philadelphia, Pa.

#### BOSTON:

October 19. Inspection of the Fore River Shipbuilding Co., Quincy, Mass. Address on shipbuilding subject.

November 5. Conditions in the Far East, illustrated, by John R. Freeman. Early Days of the Society, by F. W. Dean. Mayor Peters also spoke.

#### BIRMINGHAM:

November 5. Trip through the American Cast Iron Pipe Co. Plant, Sloss-Sheffield Steel & Iron By-Product Plant and the Preston Motor Corp. Auto factory. Dinner and meeting in the evening at Southern Club.

#### CHICAGO:

October 22. Railroad Situation of Today, by W. J. Finley, of the Chicago Northwestern R.R.

#### CLEVELAND:

October 12. Dinner and Celebration of Mr. Carman's election as President of the A.S.M.E.

November 5. Mr. W. R. Warner addressed Anniversary Meeting at the Business Men's Club.

#### COLUMBUS:

November 5. Observations During my Recent European Trip, by Col. Edward A. Deeds, Dayton, Ohio.

November 12. Design and Construction of the Uniflow Boiler, by Howard J. Webster, Uniflow Boiler Co., Philadelphia, Pa.

#### CONNECTICUT SECTION:

##### WATERBURY:

October 29. Joint meeting with New Haven American Chemical Society. Production of Lead, illustrated with Motion Pictures, by John R. McGregor, Asst. Gen. Store Mgr., Eagle Picher Lead Co.

## Coming Section Meetings

#### Akron.

December 17. In the rooms of the Engineering Society of Akron, 80 So. Main St., Akron, Ohio. Pres. E. S. Carman will speak.

#### Atlanta.

December 28. Carnegie Library. Impressions of the Annual Meeting, by N. C. Harrison, Atlantic Steel Co., Atlanta, Ga.

#### Boston.

December 17. Joint meeting with the Civil Engineers. Subject: Water Powers of New England.

#### Buffalo.

December 21. At the University Club. Subject: Industrial Application of Electric Furnaces, by E. F. Collins, General Electric Co.

#### Columbus.

December 10. In the Engineers' Club Room. Southern Hotel. Subject: Emergency Work in Power Plant Operation, by E. A. Hitchcock, Dean Eng. College, Ohio State Univ. Movies of A. M. Byers Genuine Wrought, Iron Pipe Manufacturing.

#### Connecticut Section.

##### Hartford.

December 6. At City Club. Subject: The Prevention of Grinding Wheel Accidents, by A. Rousseau, Norton Co.,

Worcester, Mass. The Art of Grinding Becomes a Science in 1920, by W. H. Chapman, Norton Co., Worcester, Mass.

#### Detroit.

December 3. Joint meeting with Michigan Heating and Ventilating Society. Subject: Modern Efficiency of Heating and Ventilating, by Dr. Hill.

#### Metropolitan.

December 3. Joint meeting with A.I.E.E. and the Taylor Society in the Engineering Societies Building. The Long Day in the Steel Industry, a problem in the engineering of men, by Fred J. Miller, Pres. A.S.M.E. The Three Shift System in the Steel Industry, by Horace B. Drury, Recently with Industrial Relations Div., U. S. Shipping Board. The Point of View of the Manufacturer, by Wm. E. Dickson, Vice-Pres. Midvale Steel & Ord. Co.

#### Philadelphia.

December 13. Joint meeting with A.I.E.E. of Philadelphia at the Engineers' Club. Subject: Superpower Survey, by W. S. Murray, Chairman of the Superpower Survey, Dept. of Interior.

#### Washington State.

December 15. At the Engineers' Club. Subject: Mechanical Engineering of Public Buildings, by E. L. Weber, Consulting Domestic Engineer.



## BRIDGEPORT, MERIDEN AND NEW HAVEN:

November 5. Excursion to plant of Seamless Rubber Co., New Haven. After dinner speech on Observations in Europe, by Mason Britton, Business Mgr. of "American Machinist," N. Y. C. Developments of Superpower, by W. S. Murray, N. Y. C.

## HARTFORD:

October 18. The Superpower System, by John A. Stevens, Lowell, Mass. Also W. S. Murray, Consulting Engineer, N. Y. C.  
November 5. The Development of the Pumping Engine, by Prof. Arthur M. Greene, Jr., Rens. Poly. Inst., Troy, N. Y.

## NEW HAVEN:

October 13. Hydro Power Developments in Connecticut with Special Reference to the Housatonic River and the Dam at Stevenson, by A. J. Campbell and Mr. Hughes of the Connecticut Light & Power Co.  
October 21. Joint meeting with Winchester Engineers Club. Dry Cells, by D. H. Gleason. Industrial Motor Control, by Prof. L. W. W. Morrow, Yale University, New Haven. Mechanical Reproduction of Pictures, by Coit Colburn. Motion Pictures on the Anatomical Structures of the Heart and Microscopical View of the Blood Circulation.

## DETROIT:

November 5. Henry M. Leland, address on the History of the A.S.M.E. An Engineer's Observations in Europe, by E. J. Mehren, Editor of the *Engineering News-Record*.

## EASTERN NEW YORK:

November 15. Tendencies in Modern Armament, by Brigadier General W. I. Westervelt.

## INDIANAPOLIS:

November 5. Past and Future of Engineering, by Dr. C. L. Mees, Pres. Rose Poly. Inst., Terre Haute, Ind.

## LOS ANGELES:

November 5. Prof. C. C. Thomas addressed meeting.

## METROPOLITAN:

November 17. Joint meeting with A.I.E.E. and A.S.C.E. Urban and Suburban Passenger Transportation.

## ONTARIO:

November 5. Queenston-Chippawa Power Development of the Hydro-Electric Commission of Ontario, by Prof. R. W. Angus.

## PHILADELPHIA:

November 5. Smoker at Hotel Adelphi. Manufacture of Tobacco, by Ben Lichty, Vice-Pres. Eisenlohr Co., Philadelphia, Pa. Dr. Hollis also addressed the meeting.

## PROVIDENCE:

November 5. Oil Refining, by Dr. K. G. Mackenzie, Consulting Engineer, Texas Co.  
November 6. Trip through East Providence Plant of the Standard Oil Co.

## SAN FRANCISCO:

November 4. Excursion to the Mare Island Navy Yard.

## ST. LOUIS:

November 5. Dean C. R. Richards, Univ. of Illinois, addressed the meeting. Motion pictures of C. H. Howards Steel Foundry.

## SYRACUSE:

November 4. Prof. Dexter S. Kimball addressed the meeting.

## WASHINGTON, D. C.:

November 5. The American Society of Mechanical Engineers, by Prof. Robert H. Fernald, Univ. of Penn., Philadelphia, Pa. Points on Burning of Fuel Oil, by Lt-Comm. W. R. Burnell, Navy Yard, Philadelphia. Manufacture of Gas as an Industrial Fuel, by Thos. King, Supt. Fuel Sales, Consol. Gas, Electric Light & Power Co., Baltimore, Md. Flow Meters, by C. L. Davison, General Electric Co., Philadelphia. The Coal Situation, by Prof. Robt. H. Fernald.

## WASHINGTON STATE:

November 5. Joint meeting with Student Branch, Univ. of Washington, at the Faculty Men's Club.

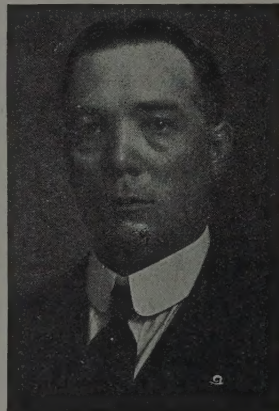
## HOBART D. FRARY

Hobart D. Frary, assistant professor of steam and gas engineering, University of Wisconsin, died on August 15, 1920. Professor Frary was born in Minneapolis, Minn., on April 28, 1887. He was educated in the Minneapolis schools and received his M.E. from the University of Minnesota in 1908 and his M.S. in 1909. He studied in the University of Göttingen in 1913-14 and in 1918 received his Ph.D. from the University of Illinois. Professor Frary had held the positions of instructor in engineering mathematics, University of Minnesota, mechanical engineer and magnetic observer, yacht *Carnegie*, Carnegie Institution; instructor in mathematics, University of Iowa, and engineer in the Forest Products Laboratory. He became connected with the University of Wisconsin in 1919.

Professor Frary was a member of the honorary societies of Tau Beta Pi and Sigma Xi. He became an associate-member of our Society in January, 1920.

## CHARLES OSCAR KLOCKARS

Charles O. Klockars, vice-president and general manager of the Essex Foundry, Newark, N. J., died on September 18, 1920. Mr. Klockars was born in Finland on August 14, 1878, and came to this country at the age of eleven. Two years later he started work at sweeping floors in the tapping room of the Malleable Iron Fittings Co., Branford, Conn. He was advanced to the position of assistant foreman at the age of eighteen. Later he was transferred to the machine shop as machinist and toolmaker apprentice. He worked at these trades for ten years.



CHARLES O. KLOCKARS

After private tutoring he entered Pratt Institute, Brooklyn, N. Y., in 1906 and was graduated in 1908 from the mechanical engineering course. His first professional work was in the engineering department of the Crane Co., Bridgeport, Conn., where he spent two years. In 1910 he entered the employ of Essex Foundry as superintendent and served in that capacity until his appointment in February, 1920, to the office of vice-president and general manager.

He was completing at the time of his death a continuous pouring machine for molding steam fittings, which would increase production 50 per cent. Several other labor-saving machines were designed and built under his supervision at Essex Foundry.

Mr. Klockars became an associate of the Society in 1911. He belonged to a number of clubs and several fraternal organizations.

## ERNEST GEORGE HENDERSON

Ernest G. Henderson, general manager and president of the Canadian Salt Co., Ltd., Windsor, Ont., died on October 20, 1920. Mr. Henderson was born in Holywood, County Down, Ireland, on September 14, 1858. He was educated at the Hillbrook School and College, Belfast, and was apprenticed for four years as pupil to the engineer of the Belfast and County Down Railway. He was then appointed assistant engineer, Ulster Division, Great Northern Railway of Ireland. In 1883 he went to Canada and engaged in surveys and construction of the main line of the C.P.R. Later he was appointed assistant engineer, C.P.R., Toronto, and then resident engineer, C.P.R., London, Ont. He resigned in 1883 to erect the plant of the Canadian Salt Co., then known as the Windsor Salt Co., of which concern he became vice-president and general manager, and finally president in 1917.

Mr. Henderson was a member of the Civil Engineers of Ireland, the Canadian Society of Civil Engineers, the American Chemical Society, the Society of Chemical Industry and ex-president of the Canadian Manufacturer's Association. He became a member of our Society in 1916.

## JOHN FINDLEY MORRIS

John Findley Morris, superintendent of maintenance of the Portsmouth Ohio, Works of the Whitaker Glessner Co., died on March 25, 1920. Mr. Morris was born in Altoona, Pa., on December 1, 1869. He was educated in the grammar and high schools of Steelton, Pa., and served his apprenticeship in the shops of the Pennsylvania Steel Co. From 1890 until 1911 he was connected with the following firms in the various capacities mentioned, thus obtaining a wide and varied experience: the Vulcan Road Machine Co., foreman machinist; Pennsylvania Steel Co. in slabbing mill, bessemer and pumping plant; Ensign, U. S. Navy during the Spanish-American War; shop foreman for Thomas Edison; assistant master mechanic, South Works of the Illinois Steel Co., Chicago; master mechanic, Dominion Iron & Steel Co., Sydney, N. S., Canada; assistant general master mechanic, Lackawanna Steel Co.; superintendent of construction of the Millikin Brothers Steel Co.; shop foreman and superintendent of M. H. Treadwell Co.; master mechanic with the Glessner Co., Portsmouth Works. From 1916 to 1917 he was connected with the Algoma Steel Co., Sault Ste. Marie, as

## NECROLOGY

## MITCHELL COFFIN

Mitchell Coffin, member of the firm of S. M. Ryder & Son, Niagara Falls, N. Y., died on February 6, 1920. Mr. Coffin was born on September 27, 1889, in Brooklyn, N. Y. He was graduated from the Massachusetts Institute of Technology in 1912, receiving his B.S. in mechanical engineering. From graduation until the time of his death, he was a member of the firm of S. M. Ryder & Son, engaged in the designing and manufacture of machinery.

Mr. Coffin became a junior member of the Society in 1913.



superintendent of maintenance. He returned to the Glessner Co. at the end of that period to assume the position which he held at the time of his death.

Mr. Morris belonged to a number of clubs and fraternal organizations and was especially interested in the civic affairs of Portsmouth. He became a member of the Society in 1918.

#### CHARLES KOPP

Charles Kopp, chief engineer of the Norit department of Joseph Baker Sons & Perkins Co., Inc., New York City, died on October 11, 1920, in Donaldsville, La., while in charge of the erection of new machinery used with the Norit in refining sugar. Mr. Kopp was born on February 25, 1890, in Chicago, Ill. He was educated at the Hebrew Technical School and Cooper Union, New York City. From 1908 to 1918 Mr. Kopp was associated for varying periods with the following firms: the Mosher Water Tube Boiler Co., Westinghouse, Church, Kerr & Co., Gibbs & Hill, E. L. Phillips Co., and the Honolulu Iron Works Co., all of New York City. He was also consulting engineer for the American Burtonizing Co., Staten Island, N. Y., resigning from this firm to take the position he held at the time of his death. Mr. Kopp became an associate-member of the Society in 1919.

#### PATRICK NOBLE

Patrick Noble who was president of the Pacific Rolling Mill Co., San Francisco, Cal., and who played such an important part in the early development of the iron and steel industry on the Pacific Coast, died on October 2, 1920. Mr. Noble was born in Abbeville, S. C., on January 14, 1849. He served during the last year of the Civil War in the Confederate Army, having just reached his sixteenth year.

In 1868 he went to San Francisco where he started work with the Pacific Rolling Mill Co., then a very small mill in its early stages. From that time Mr. Noble was associated with the mill in various capacities, finally becoming general manager. In 1898 he took over the entire business and operated it until the time of his death.

As the mill was located at such a distance from the Pittsburgh region and transportation facilities were poor, the equipment had to be developed in great part without any previous experience or plans from which to work. Mr. Noble was responsible in a very large degree for the reputation achieved in this direction by the mill.

He was graduated from Charleston College and was a member of the Engineering Society of Western Massachusetts and of several clubs of San Francisco. He became a member of our Society in 1892.

## PERSONALS

MAYO D. HERSEY, who for over ten years has been a physicist at the United States Bureau of Standards, and recently chief, Aeronautic Instruments Section, Washington, D. C., is now connected with the Massachusetts Institute of Technology, Cambridge, Mass., as associate professor of Properties of Matter, Department of Physics.

HAROLD B. SMITH, listed in the 1920 Year Book under New London, Conn., should be listed under Worcester, Mass. Although Professor Smith served as consulting engineer for the Special Board on Submarines at the Naval Experimental Station, New London, Conn., he has maintained his residence in Worcester, where he is professor of electrical engineering, consulting engineer, and director of the Electrical Engineering Department at Worcester Polytechnic Institute.

G. SHIRMER has resigned his position as sales engineer with the Whiting Foundry Equipment Company and is now associated with W. C. Bennett, industrial engineer, Chicago, engaging in all branches of foundry and industrial engineering, designing, superintending and equipping of complete installations.

F. E. PIERCE and JOHN SKOGMARK, formerly associated in business as Pierce & Skogmark, Inc., announce that they are now connected with the firm of L. L. Summers & Co., New York City.

J. M. HENRY announces his transfer from the position of assistant research engineer of the Pratt & Whitney Co. to the publicity department of the Niles-Bement-Pond Company, New York City. He will also have charge of the publicity connected with the Pratt & Whitney Co. products.

A. A. SHIMER, formerly at the Flower Observatory, Upper Darby, Pa., is now connected with the Hercules Power Company, Brunswick, Ga.

C. E. A. GRONBECH is now factory manager for the Edgar E. Kahn Corporation, Keene, N. H. He was formerly connected with the C. J. Tagliabue Mfg. Co., Brooklyn, N. Y. as superintendent and assistant factory manager.

A personal item concerning HARRY A. SCHWARTZ which was published in the November number of MECHANICAL ENGINEER is incorrect. The membership of the Society includes two members of the same name. Mr. Schwartz of The Defiance Machine Works, Defiance, Ohio, has made no change in his position. The other Mr. Schwartz, who was formerly with the Indianapolis office of The National Malleable Castings Company, is now manager of research, Research Laboratory, in the Cleveland branch of The National Malleable Castings Company.

JAMES A. ELLIOTT, formerly chief accountant, Cooley & Marvin Co., Boston, announces that a partnership, under the firm name of Elliott, Davis & Co., has been formed between himself and Herbert T. Davis, also of Cooley & Marvin Co. The new company will conduct a general practice of public accounting. The main office is in Boston; a branch office is located in New York.

D. G. McMILLAN, formerly with The Singer Mfg. Co., and more recently with The Williams Printing Company, New York, as maintenance engineer, has resigned to become superintendent of power with the Willys Corporation, Elizabeth, N. J.

F. M. BOND, who for the past six months has been manager of the Corticelli Silk Mills (Nonotuck Silk Company) at Leeds and Haydenville, Mass., has been appointed general manager in charge of all the mills of the Company, with headquarters at Florence, Mass.

PHILIP J. WERNER, for the past nine years with the Panama Canal, inspection department, has resigned his position and is now in charge of construction for the Stanley Company of America, Philadelphia, Pa.

J. N. ELEY, a consulting engineer of Atlanta, Ga., is a new Member of the Society. He was erroneously listed as a Junior in the list of New Members of the Society published in the October issue of MECHANICAL ENGINEERING.

KENNETH WATTS, who for the past seven years has been in charge of the Gasoline plants and producing properties of the Oklahoma Petroleum and gasoline Company of Tulsa, Okla., is to take charge of the operation of a large oil company in South America. Mr. Watts will visit his home in Bridlington, England, before taking up his new work.

W. D. MANN, formerly with the American Incandescent Heat Company, is now combustion engineer in the engineering department of the Petroleum Heat and Power Company, Boston, Mass., formerly Fess Rotary Oil Burner, Inc.

CHARLES M. REED has recently accepted the position of power engineer for the Portsmouth Cotton Oil Refining Corporation, Portsmouth, Va. He was formerly assistant to the steam engineer, American Sheet and Tin Plate Company, Pittsburgh, Pa.

JOHN D. SPALDING, formerly chief draftsman, Smalley-General Company, Bay City, Mich., is now associated with the Westinghouse Air Brake Company of Pittsburgh, Pa.

EDWARD H. TAIT, formerly general manager, Emerick Mill Company, Easton, Pa., is now vice-president and general manager, Greenwich Mfg. Co., Reading, Pa.

THOMAS B. WILSON has been appointed steam engineer in charge of the newly organized department of steam engineering at the Maryland plant of the Bethlehem Steel Company, Sparrows Point, Md. He was formerly steam engineer for the Cambria Steel Company and for the past two years has been on combustion work for the Du Pont Company, Wilmington, Del.

A. PADRON, who for some years has represented in Brazil the Kelvin Engineering Co., Inc., of New York, has been appointed general manager of Kelvin Engineering Co., Inc. of Brazil, a subsidiary company of the former engaged in the sale of sugar machinery in Brazil.

HUGH E. STEELE, who has been with the machinery sales department of W. R. Grace & Co., importers and exporters, for the past nine years, has left that firm to open an office as consultant on machinery exporting, New York, N. Y.

R. A. SEATON has been appointed Dean of the Division of Engineering and Director of the Engineering Experiment Station at the Kansas State Agricultural College, to fill the vacancy made by the resignation of Dean A. A. POTTER. Previous to his appointment as Dean, Mr. Seaton was professor of Applied Mechanics and Machine Design and in charge of the Road Materials Testing Laboratory.

DAVID MOULTON, formerly assistant mechanical engineer for Monks & Johnson, Boston, Mass., is now with the Walworth Mfg. Co., Boston.

F. R. GREYSON announces that he is now connected with the Cerro de Pasco Copper Corporation at La Fundicion, Peru, where he will be located for at least two years. He has been with the Lackawanna Steel Company of Buffalo, N. Y., for the past year.

RAYMOND W. MULLER, formerly service engineer for Walter Kidde & Co., New York, is now works engineer for The Vulcan Detinning Company, Searon, N. J.

C. E. BURGOON has resigned as staff assistant to the Director of the Division of Supply and Sales, U. S. Shipping Board, Emergency Fleet Corporation, to accept a position as properties and records engineer with the Cuba Cane Sugar Corporation, Havana, Cuba.

GEORGE W. CRAVENS is now vice-president and general manager for the Universal Body Corporation at Mishawaka, Ind.

W. A. SMITH is now connected with the Acheson Graphite Company, Gredag Department, Niagara Falls, N. Y., in the capacity of development engineer.

JAMES D. MOONEY, until recently assistant to A. P. Sloan, Jr., vice-president of the General Motors Corporation, has been made general manager of the Remy Electric Division of that corporation, Anderson, Ind.

DAVID S. WEGG, JR., has left the employ of the Allis-Chalmers Mfg. Co. to become associated with W. A. Gilchrist of Chicago as electrical engineer.

GEORGE A. EVANS is now with the Grasselli Chemical Company as head of the power department, Grasselli, N. J. He was formerly assistant to mechanical engineer, Public Service Electric Company, Newark, N. J.



# EMPLOYMENT BULLETIN

THE SECRETARY considers it a special obligation and a pleasant duty to make the office of the Society the medium for assisting members to secure positions by putting them in touch with special opportunities for which their training and experience qualify them, and for helping any one desiring engineering services. The applications listed below combine the services of the Society and of the Engineering Societies Employment Bureau, Engineering Societies Building.

## POSITIONS AVAILABLE

*Stamps should be inclosed for transmittal of applications to advertisers; non-members must accompany applications with a letter of reference or introduction from a member; such reference letter will be filed with the Society's records.*

**YOUNG MAN** to give instruction in shop practice by correspondence. Should be high-school graduate with either training or experience in machine-shop work and some knowledge of pattern making and foundry work. Location Pa. Z-2064.

**CONSTRUCTION FOREMEN**, two, on frame construction, to erect roller coasters and other amusement devices. Must be able to take full responsibility of field work and to secure speed without waste. Good opportunity for profitable and permanent connection for man who can show results. Must be able to travel. State qualifications and experience, salary desired, etc. Location Pa. Z-2254.

**GRADUATE MECHANICAL OR CIVIL ENGINEER** to make engineering studies and calculations of problems connected with iron and steel manufacture. Also work on patent specifications in relation to the steel industry; technical catalogs and engineers' handbooks. Should have keen analytical mind and thorough understanding of engineering technics. Give full particulars regarding education, experience and other details which will indicate personality; photograph also of interest. Location Pa. Z-2266.

**ASSISTANT PROFESSOR** to teach descriptive Geometry and machine drawing in southern university. Should have teaching and practical experience Z-2271.

**MECHANICAL ENGINEER** familiar with design and operation of all forms of drying machinery and Japanning ovens. Should have some intimate contact with this class of machinery, and especially in construction of same. Location N. Y. City. Z-2276

**MASTER MECHANIC** for phosphate mine. Must be able to do repair work for cars, locomotives, mining machinery and general shop work. Location Florida. Z-2282.

**EXPERIENCED GLASS MAN** to take entire charge of glass works, both hand and machine bottles. Must understand machines making glass and production end. Give full details of experience, age, salary, expected and reference, in first letter. If not an A No. 1 glass man, do not answer this ad. Location Va. Z-2285.

**SPECIFICATION WRITER** on interior work for ships. Must have marine experience in this line. One man needed. Location N. Y. City. Z-2292.

**GRADUATE ENGINEER**, age about 25. At least one year of business experience. Sales experience not necessary, but definite adaptability to selling and desire for future in sales rather than production, engineering or purchasing fields. Outside of selling experience, purchasing experience first and production experience second as valuable in applicants. Fair salary to start and advances as value to the company increases. Straight salary only. Above salary can offer exceptionally thorough training in merchandizing, and opportunity for advancement as years go on. Apply by letter. Location Indiana. Z-2302.

**EDITOR** experienced in power-plant work. Two men needed. Location New York City. Z-2306.

**CHIEF DRAFTSMAN**. Should have experience on condenser and centrifugal pump work, but not altogether necessary, provided he is able rapidly to familiarize himself with this class of work. Greatest importance that he have executive ability and be capable of handling men with necessary discipline together with tact. Location Pa. Z-2314.

**SALESMEN** to sell marine machinery and contractors' supplies in Metropolitan District. Man with established New York City trade in this line of business or who has sold similar material in other sections of country. Buying experience with knowledge of sources of supply on material of this kind. Location New York City. Z-2315.

**SPECIALIST** experienced in forming and heat treatment of punches, dies, turning and cutting tools and like attachments of stationary machines. Must be able to supervise manufacture and maintenance of entire small-tool equipment of large industrial plant. Location Newark, N. J. Z-2317.

**MECHANICAL ENGINEER**, preferably technical graduate, having steam power-plant experience to assist in preparation of technical-book manuscripts and in other steam-engineering work, largely of desk and detail character. Ability to write good English essential. Teaching experience desirable. Desire well-balanced painstaking engineer. Good future. Give age, education, experience and salary expected. Location Missouri. Z-2318.

**ELECTRICAL and MECHANICAL ENGINEER** familiar with seagoing hopper-type suction dredges and hydraulic suction pipe-line dredges, also with steam and gasoline tugs and launches. Will be expected to assist superintendent of dredges in operation and repair of fleet of 6 dredges with attendant plant. Applicant should give educational qualifications, employment history, age and all other pertinent information. Will be expected to undergo civil service examination for appointment to grade of junior engineer or superintendent. Location Texas. Z-2323.

**SALES MANAGER** for company manufacturing pulverized-fuel machinery. Man with combustion experience desired but one with sales experience in foundry or power plant machinery will be considered. Location United States. Z-2324.

**SALESMAN** for company manufacturing water-purification machinery. Should have experience in textile mills or power plants or know these companies. Sales experience absolutely necessary. Man under 27 will not be considered. Two men needed. Location New York City. Z-2325.

**DESIGNER** to make drawings, etc., for blast-furnace plants and mines. One with experience in laying out blast-furnace or power-plant equipment, or both, would be preferred. Salary will depend on experience and ability of man. Location Pa. Z-2327

**MECHANICAL ENGINEER** with means to join advertiser in organization of factory for production of spools, bobbins, kindred products for textile mills. Must be capable of designing tools and machines. Location Eastern Canada. Z-2328.

**ENGINEER**, technical, French nationality with broad American mechanical and commercial experience in design, construction, installation and operation of machinery. Position requires residence abroad and applicant must have thorough command of French. Appointment will be made by letter only, giving age, nationality, experience and salary desired. Z-2330.

**GRADUATE MECHANICAL ENGINEER** between 25 and 30 years old, for company manufacturing ball bearing. Must possess self-reliance and confidence. Successful, etc. Location New York City. Z-2354.

**YOUNG ENGINEERS** for mechanical design and development work, preferably with several years of design and shop experience. Location New Jersey. Z-2355.

**MECHANICAL DESIGNER** familiar with development of small apparatus for manufacture in large quantities. Must have experience with manufacturing and tool-development problems and be able to follow development through designing, tool development and early manufacturing stages. Location Pa. Z-2356.

**MECHANICAL ENGINEER**; two or three years' experience in power-plant operation. Must be capable of working with chief engineer, in getting bet-

ter results from boiler and engine room. Installation consists of approximately 2200 boiler hp. and total electric load of 5500 kw-hr. In addition we have numerous problems of power distribution which require investigation of technical man. Location New York City. Z-2357.

**ENGINEER** experienced in designing and making shop drawings for special machines. One with experience in design of saw-mill machines and woodworking plants. Such experience not essential, if man is practical. Must be willing to go to shops in Middle West and carry on work, after three or four months of preliminary work in New York. Z-2359.

**TURBINE ENGINEER**. Experienced in the design of Curtis and Curtis-Rateau turbines. Must be able and willing to train and supervise one or more calculators. Salary in accordance with experience and ability. State experience in full, when available and approximate salary desired in first letter. Location Conn. Z-2367.

**CALCULATOR**. Young man mathematically inclined to learn design and calculation of steam turbines. Technical training and knowledge of thermodynamics desirable but not essential. Location Conn. Z-2368.

**CHIEF INSPECTOR** for plant in Middle West manufacturing electrical machinery. Work to cover both mechanical-parts inspection and electrical inspection of sub-assemblies. Technical man desired, 30 to 40 years old with broad experience in manufacturing work. Good executive and able to coordinate his work with that of other departments without friction. Location Ohio. Z-2370.

**SURVEYOR** for work with oil company in South America. Z-2371.

**STEAM EFFICIENCY ENGINEER**, college training, about 25 years old, experienced in steam-conservation work in industrial plants. Young man with initiative, who can work into organization and finally fill responsible position. State age, married or single, experience, references. Location Chicago. Z-2373.

**PETROLEUM ENGINEER**, must be able to inspect and report merits of large prospects anywhere from Nova Scotia to Mexico, etc. Experienced men only will be considered. Z-2375.

**YOUNG COLLEGE MAN** as assistant to chief engineer on power-plant records and tests, also industrial heating and motor application. State experience if any, education and salary wanted. Location Michigan. Z-2377.

**ENGINEER** experienced in wood-making machinery. State in detail experience. Location Baltimore, Md. Z-2397.

**UNITED STATES CIVIL SERVICE EXAMINATION**

**SENIOR ENGINEER**, Grade 2. C.E. E.E. M.E. Signal, Structural, Telephone and senior Architect. Salary \$2500 and bonus.

**ELECTRIC DRAFTSMAN**. War Dept. Application received until March 7, 1921. Salary depends on experience.

**SUPERINTENDENT OF ELECTROPLATING**. Salary \$3000 to \$4500. Application to close Dec. 7, 1920.

**SUPERINTENDENT OF CONSTRUCTION**. Application to close Dec. 7, 1920. Salary \$2500-\$3000.

## MEN AVAILABLE

*Only members of the Society are listed in the published notices of this section. Copy for notices should be on hand by the 5th of the month preceding date of issue and should be limited to 45 words. The form of notice should be such that the initial words indicate the classification. Notices are not repeated in consecutive issues.*



**CHIEF ENGINEER or SUPERINTENDENT**, Age 33, married, thorough practical mechanic, 15 years' personal contact with manufacturing problems including design and building of modern tool, and machine equipment; also installation and operation of same. Detroit preferred. SM-5680.

**INDUSTRIAL ENGINEER**, age 31, technical graduate, 8 years' practical experience, 3 years as industrial engineer in connection with installation of Gantt and Barth systems, familiar with time study, scheduling and routing production, cost accounting, etc., 5 years designer of power plants, coal and ash-conveying systems, industrial plants, transmission machinery, labor-saving devices, heating and ventilating, fire-protection systems. Accurate draftsman at present employed, desires change. Advancement rather than initial salary chief consideration. SM-5681.

**MECHANICAL ENGINEER**, with over 20 years' experience desires new connection as chief engineer for office. Past experience in designing, constructing supervising of construction and erection in various branches of mechanical engineering, including artificial refrigeration, heating and ventilating; 41, married, can show successful record; best of references as to ability and character. SM-5682.

**MECHANICAL ENGINEER**, 38; 15 years' experience as designer and construction superintendent, including power-plant work, industrial and general engineering. Thorough knowledge of modern steam-power plant, design and construction. Familiar with engineering economics. SM-5683.

**GRADUATE MECHANICAL ENGINEER**, 1 1/2 years sales-engineering experience in mech. dept. of large rubber company; 1 1/2 years' experimental and development work in Engineering Division of Ordnance Dept. in U.S.A. At present employed; desires permanent position in East with manufacturer of power-plant or other essential engineering apparatus. SM-5684

**ENGINEER**, mechanical, assistant, 29, technical graduate. Ten years' experience, layout, checking, calculations, on machinery, machine tools, tools, instruments, interchangeable manufacture, inspection of castings, etc. Position desired assistant to engineer; systematic; salary \$50. SM-5685.

**SUPERINTENDENT or Industrial Engineer**, Cornell Graduate, 36, married; 14 years broad and thorough manufacturing experience beginning with machine-shop training including 3 years as industrial engineer installing modern shop methods of manufacture, cost and production control; 7 years' executive experience in factory operation and management; 4 years in present position. SM-5686.

**MECHANICAL ENGINEER**, 8 years of electro-mechanical designing, 3 years practical shop work; age 28, married. Would like designing and drafting work in spare time, or as assistant to drafting instructor. SM-5687.

**CONSULTING MECHANICAL ENGINEER**, specializing in design, construction and installation of automatic or labor-saving machinery for factories. SM-5688.

**MECHANICAL ENGINEER**, technical graduate, 35, married, 15 years' experience in machine and tool design, plant layout, production, power-plant and experimental work. Desires position as production engineer, industrial research man, or executive. Experienced on interchangeable manufacture, small sheet-metal stampings and woodwork. Can get results. New England preferred. SM-5689.

**MECHANICAL ENGINEER**, technical graduate, 25, married. Fundamental practical training obtained in shops before and during university course; 14 months in Army, two years' experience in research work. At present employed, desires change to position offering future. Salary \$200. Vicinity Philadelphia, Pa. preferred. SM-5690.

**ENGINEERING EXECUTIVE**, experienced in machinery, tools, plant layout, equipment and scientific investigations to build up production and quality. Work has covered manufacture of electrical devices, metal parts in quantities, experimental developments, woodworking, porcelain and power equipment. Possess thorough knowledge of best machinery and modern methods of manufacturing. Salary moderate if position is permanent, and recognized abilities would assure good future. Desires location within 200 miles of New York City. SM-5691.

**MECHANICAL-ENGINEERING GRADUATE**, 29, emerging from experimental undertaking of varied mechanical nature involving design, shop, and laboratory experience, desires affiliation in manufacturing line. Previous experience in lubrication engineering where close insight and study of numerous manufacturing methods was possible. SM-5692.

**MECHANICAL ENGINEER**, 45, technical graduate; experienced in design of steam engines and turbines, with broad knowledge of heat-power engineering, until recently employed by U. S. Navy in important position, desires' position as executive designing engineer with company manufacturing power-generating machinery in quantity. SM-5693.

**MECHANICAL ENGINEER**, graduate Michigan University, 32 years, married. Open for position as purchasing engineer or material supervisor; 8 years' experience in engineering and material problems from buying of raw materials to selling of factory scrap, including study of scrap prevention. SM-5694.

**MECHANICAL AND EFFICIENCY ENGINEER**, American, 27, technical graduate. Experienced in combustion, maintenance, operation and testing of large power plants; wide awake, progressive, executive ability. Desires connection with growing company offering opportunity for advancement. Salary commensurate with position. SM-5695.

**GENERAL OR WORKS' MANAGER**, 20 years' manufacturing experience acquired as general manager, factory manager, chief engineer and superintendent. Have successful record as executive. Especially qualified on factory construction, equipment, organization, production and costs. Have recently placed two industries on paying basis. Technically trained, expert mechanic. SM-5696.

**MECHANICAL ENGINEER**, age 34, technical graduate with 7 years' experience in power-plant design, general operation, and combustion problems especially. Have made special study of power-station economics and can handle all phases of betterment work. Salary \$4000. SM-5697.

**MECHANICAL ENGINEER**, technical graduate, 31, practical in machine shop; thoroughly experienced in designing tractors special production machinery, jigs, fixtures and dies for production in great quantity; experienced in production methods and plant equipment; good on work of mathematical and technical character. Location Middle West. \$3000. SM-5698.

**WORKS ENGINEER**, maintenance or executive engineer along these lines. Position desired where 17 years' experience in design, maintenance and alteration of industrial plants will be appreciated. Have also experience in very close limit interchangeable production engineering. Last salary \$5200. SM-5699.

**ASSISTANT TO PRODUCTION ENGINEER or MANAGER**, graduate, 6 years' experience as electrical and mechanical engineer in manufacturing and railway work. At present employed but wishes to connect with progressive manufacturing firm in New York City or vicinity. Age 29 years. SM-5700

**STEAM POWER-PLANT SPECIALIST**, 15 years' experience, operation and maintenance of electric railway, light and factory power plant. Two years' testing and experimental work. Past three years in charge construction of power plants in Orient. Desires executive position commensurate to his experience. SM-5701.

**INDUSTRIAL EXECUTIVE**, superintendent of metal-manufacturing plant with successful production experience wants permanent position with opportunities for advancement. Graduate mechanical engineer with shop experience. Have obtained results as head of production department of large corporation and in present position. SM-5702.

**WORKS MANAGER OR SUPERINTENDENT**, 18 years' practical manufacturing experience, 3 years' industrial engineer, installing cost, production and office methods, 4 years works manager; 6 years foreman and superintendent. Have organized and built up two industries from beginning. Thoroughly familiar with principles of modern manufacturing methods. At cost accountant. Certified traffic manager. Now works manager, but desire permanent connection with growing progressive concern. American, 37, perfect health. Available 2 weeks from date of agreement. SM-5703.

**EXECUTIVE position** desired by American, graduate engineer, age 40. Member of A.S.M.E. and A.I.M.E.; eighteen years broad engineering experience in responsible positions with first-class corporation. Extensive experience in management cost analysis, including supervision of construction, designs and estimates. Can arrange for New York interview. SM-5704.

**MANUFACTURING EXECUTIVE**, expert on cost and production-control problems; 12 years' practical experience including reorganizing and systematizing of industries. Have also supervised: process inspection, plant layout, employment, welfare and safety engineering. Familiar with tools,

machine tools, iron and brass foundries, boiler shop and tube mill. Age 32. SM-5705.

**TECHNICAL GRADUATE**, C.E. Mechanical experience. Open-hearth steel production, educational. Age 27. Desires to locate vicinity Troy, New York. SM-5706.

**PRODUCTION ENGINEER**, graduate of M. I. T. Well acquainted with production systems, time study, lay-out work in foundry and machine shop. Has held important executive positions. Honest, tactful, industrious, persistent. Desires permanent position. SM-5707.

**CHIEF ENGINEER**, works engineer or similar connection by practical and technical man with broad and varied foundry and rolling-mill experience; ability to handle men and get results. Thoroughly familiar with costs, records, engineering, construction and maintenance of foundry buildings and allied tools and equipment. SM-5708.

**SUPERINTENDENT**, 35, experienced in sheet metal manufacturing such as building material, metal windows, heating and ventilating, flume, culverts, tanks, etc. Experience in cost systems, installation of equipments, arrangement of plant and handling of material; also in field on metal flumes and irrigation projects. Pacific Coast preferred. SM-5709.

**MECHANICAL ENGINEER**, Captain Ord. Dept. U.S.A., about to be discharged. Thirty years' experience as designing and constructing engineer on cotton mills, power plants, industrial buildings, chemical plants and small arms. Available on drafting board or in field, either foreign or domestic service. SM-5710.

**EXPERIMENTAL AND MECHANICAL ENGINEER**, and expert gage maker and executor of over 20 years' experience, desires position. Best of references. East preferred. SM-5711.

**MECHANICAL ENGINEER**, technical graduate, 33, married; 13 years' broad experience as chief draftsman, plant engineer and chief engineer, in design construction and operation of industrial plants and equipment. Considerable selling experience along machine-tool, mechanical and general factory equipment lines. Desires position of responsibility with engineering, manufacturing or selling organization. Salary commensurate to responsibility. SM-5712.

**SALES ENGINEER** will represent first-class company which requires service of experienced engineer to look after interest in various Government Departments at Washington, D. C. Now doing this class of work and sufficient time available for another good company. SM-5713.

**MECHANICAL ENGINEER and Executive**, 34, technical education; practical shop experience. Six years as executive along mechanical lines in office, engineering and shop management. Thoroughly familiar with modern methods. Desires connection in East. Minimum salary \$4000. SM-5714.

**EMPLOYMENT MANAGER** in industrial establishment planning to organize employment department in near future. Duties to consist of questions and problems of industrial relationship between employer and employee. Experience substantiated by 7 years' practical work in human-engineering field. SM-5715.

**MECHANICAL ENGINEER**, Stevens Institute of Technology, age 24; one year as assistant to manager of large power plant, maintenance, general supervision, costs and boiler testing. SM-5716.

**SUPERINTENDENT OF POWER**, chief engineer or master mechanic; 14 years' practical and theoretical training in electric power plants and steel mills, desires change. Specialist in combustion of coal and economic power production and distribution. Very successful in design of additions and construction under operating conditions. Married, 31; minimum salary \$3600 SM-5717.

**FACTORY SUPERINTENDENT**, or efficiency engineer in automobile or motor-parts industry; 15 years' experience; last five in above named. Will go to any section of U. S. and certain parts of Canada. SM-5718.

**GENERAL MANAGER**, who has successfully developed specialized machinery-manufacturing business, engaged both in domestic and export trade, now available. Thoroughly competent engineer, also attorney. Equally capable in organizing, selling or developing product. Prefer connection with moderate-sized company capable of large expansion and offering future worth giving up a \$10,000 a year position. SM-5719.

**MECHANICAL ENGINEER**, 32, technical graduate, married; 10 years' experience in shop, design, construction, maintenance, estimating, standardization and investigating work. Desires position of



responsibility with industrial or consulting-engineering concern. Middle West preferred. Salary \$3600. SM-5720.

**PRACTICAL MECHANIC AND ENGINEER**, in steel-plate construction, in capacity of superintendent of boiler shop. Familiar with scotch marine, fire and water-tube boilers. Organizer and producer. At present employed, but desires to change. Best of references. SM-5721.

**PRODUCTION ENGINEER** or Superintendent. Age 37; 18 years' general machine-shop experience. Thoroughly familiar with shop and central-planning department management. Minimum salary \$4000. SM-5722.

**SALES AND PURCHASING ENGINEER**, with wide experience with nationally-known machinery-manufacturing corporation, having purchased home in Southern California, desires to connect with responsible Los Angeles concern where past experience will be of value. Especially familiar with direction of machinery sales, organization of traveling and office-sales forces, including publicity, preparation of printed matter, advertising, dealer agencies, etc.; purchasing of machinery and supplies; production and various applications of compressed air; sale and application of pumping and mining machinery. SM-5723.

**ASSISTANT ENGINEER**, two years' experience in design and manufacture of motor trucks and automobile gears; two years' broad experience in modern production and control methods including time and job analysis, planning and routing, rate setting, stores control, etc., two years' active service with Engineer Corps in A.E.F. Desires permanent connection with progressive concern offering attractive future, location immaterial. Age 27, married, now employed. Available December 1. Salary \$3000. SM-5724.

**PRODUCTION SUPERINTENDENT**, 22 years' practical experience in building and designing special machinery tools and dies. Capable of installing practical manufacturing methods, piece work or premium systems. Expert on interchangeable parts. Can handle factory which employs 1000 to 1500 men. Open for position January 1, 1921. Location desired Chicago, Ill. SM-5725.

**MECHANICAL AND POWER ENGINEER**, age 28, single; technical graduate; B.S. and M.E. Six years' experience along broad lines; chemical manufacturing; machine shop, metallurgy, sugar engineering, industrial and power-plant practice and operation, layout, design, calculations, steam heating, research, etc. Has business and executive ability and can handle men. Desires connection as mechanical engineer, works engineer, or in similar position. SM-5726.

**FACTORY SUPERINTENDENT**, metal stampings. American, age 27. Twelve years' experience in manufacture of metal stampings. Thoroughly familiar with modern production methods, and close observer of costs. Employed as foreman clitting machinery, foreman power-press department, manufacturing superintendent, and production engineer. Successful in handling labor. SM-5828.

**ENGINEER**, executive, foreign trade. Age 32. Also member Institute Mechanical Engineers (London). Possesses exceptional commercial knowledge, initiative and foreign-trade technique in addition varied engineering experience embracing shopwork, inspection and supervision important governmental contracts, purchase and sales large quantities machinery. Now engaged as chief engineer influential export concern. Will shortly be open contract with progressive concern to act as special representative or would consider taking charge engineering department large machinery or export firm. SM-5729.

**ENGINEER MANAGER**, at present asst. gen. mgr. upstate New York corporation. Has previously reorganized and modernized methods and personnel, centralized control and changed three plants permanently from losing to dividend-paying basis in metal goods and hardware, automatic machinery and instruments, and paper-goods lines. American stock, age 36, bonus arrangement required. SM-5730.

**GRADUATE MECHANICAL ENGINEER**. Age 30; 7 years' engineering experience. At present assistant to engineer in charge of construction work on industrial buildings, power plants and foundries with duties, estimating, purchasing, supervisions of drafting, handling correspondence with field and administrative work. Wishes position with manufacturing or engineering concern. Salary \$300 per month. SM-5731.

**MECHANICAL ENGINEER**, spare-time work. Present position allows 15 or more hours per week to outside work. Not averse to night and Sunday work if necessary. Can handle drafting, testing materials, and all general engineering work. References furnished. SM-5732.

**WORKS MANAGER** and superintendent of industrial manufacturing plants. Available January 1, 1921. American, age 44; 15 years' successful operation of manufacturing plants in South, Southwest, West and East. SM-5733.

**SALES ENGINEER**, 35; 10 years' experience in engineering. Also manager Philadelphia territory for Western concern for three years. Desires new connection with good live firm to cover mill and factory trade. SM-5734.

**MECHANICAL ENGINEER**, 27, Cornell graduate; designing and construction experience on hoisting machinery and rotary kilns; also 1 1/2 years in Naval Aviation and Commercial flying. Desires position with automobile or airplane concern. SM-5735.

**INDUSTRIAL AND MECHANICAL ENGINEER** 38. Technical training; 14 years' experience resident and professional. Executive control methods and organization for increase of production and sales; planning, scheduling and dispatching of time and materials; elimination of wastes; establishing standards and incentives; bettering methods and processes and lowering costs. Four years as operative supervisor and consulting engineer for nationally known industrial engineering concern. Now employed. Desires responsible position with progressive California concern. SM-5736.

**MECHANICAL ENGINEER**, Technical graduate, 27; five years' experience as designer, experimental engineer and executive's assistant, chiefly on light accurate interchangeable products. Two years' experience on automobile lighting and ignition equipment. Desires position of responsibility with ample opportunity for promotion. SM-5737.

**SERVICE ENGINEER**, desires position in service, sales or engineering departments of industrial plant. Experience covers hoisting, mining and paper-working machinery, cranes and boilers. Age 29. New York or Philadelphia vicinity preferred. SM-5738.

**ASSISTANT TO WORKS MANAGER** or superintendent. Technical graduate, married, four years' machine-shop experience on varied class of work as assistant to superintendent of shop employing thousand men. Desires connection with progressive smaller concern. Salary \$3000. SM-5739.

**TECHNICAL GRADUATE**, mechanical, age 25, with plenty of drafting and designing experience on automobile and motor work desires to change to some line of work other than designing. Have good training in heat treatment and metallography. Would like position with promising future. Preferred location lower Michigan. SM-5740.

**MECHANICAL ENGINEER**, Technical Graduate; 12 years' experience in design, planning, time study, bonus systems, organization of new departments and equipment for new processes, expert in accurate mass production. Desires connection with progressive concern in executive capacity. SM-5741.

**PLANT OR CHIEF ENGINEER**. Young American. Served as chief engineer, plant engineer, systematizer and consulting engineer for foundries and large corporations. Thoroughly practical man having started at bottom. Forceful executive and organizer, successfully handling both men and women. Desires to make change to growing concern. Willing to invest and to take part of salary in stock of company. Best of references. SM-5742.

**MECHANICAL ENGINEER**, 18 years' experience in maintenance, design and production as foreman, master mechanic, chief draftsman, chief engineer and production engineer. Desires position as superintendent, chief draftsman or industrial engineer with progressive concern offering opportunities for advancement. Location immaterial; willing to go abroad. Salary \$4500 in U.S.A. Salary abroad according to location. SM-5743.

**SALES ENGINEER**, mechanical, technical graduate, with broad experience and successful record in sale of power-plant apparatus and mechanical equipment of industrial plants and buildings, desires position with company where ability to engineer and close large contracts for above or similar lines is required. SM-5744.

**MECHANICAL ENGINEER**, 14 years' experience in charge of designing work and general supervision of production equipment, for manufacture of small parts. American born, age 37; married. Salary \$5000. SM-5745.

**ENGINEERING EXECUTIVE**, graduate in mechanical engineering and business administration. Three years division superintendent electric railway, power and light company. Since war assistant engineer in charge of construction, supervising purchases, designs and correspondence between office and field, on power plant and factory construction. Minimum salary \$3600. SM-5746.

**GRADUATE ENGINEER**, 46. Structural experience with fabricating companies and engineers. Lately in charge of several squads, supervising design and drawings for industrial structures of various

kinds, letting contracts, also correspondence. Similar position desired or one as sales engineer with manufacturing company. SM-5747.

**MECHANICAL ENGINEER**, recent graduate with considerable experience in production and tool designing in automotive industry. Exceedingly anxious to locate in Pacific coast states or other mild sections of country on account of mother's health. Will consider fair offer in any line, providing I should feel confident. SM-5748.

**FACTORY OR MECHANICAL SUPERINTENDENT**; 20 years' varied experience with executive and mechanical ability. Technically trained in addition to being practical mechanic. Competent on manufacturing, designing and bonus or piece-rate systems. Connection desired with concern that wants man with ability to produce results. Age 36; will furnish best of references. SM-5749.

**GRADUATE MECHANICAL ENGINEER**, age 26; married. Four and half years' engineering experience including machinery estimating, design, ordnance work and plant installations. Desires position as assistant engineer with industrial concern. Prefer location New York City or vicinity. SM-5750.

**EXECUTIVE** position as works or plant engineer, superintendent or master mechanic, wanted by man of broad experience. Ability to handle men and accomplish results; 15 years' experience on production of medium and heavy machinery, engine pumps, air compressors, conveyors, air, steam water and gas piping. Expert on coal and water-gas equipment. American; married. SM-5751.

**GRADUATE MECHANICAL ENGINEER**, age 30; married. Broad experience along line of pressed steel and other metals. Recently sales manager for company making automobile and truck frames. SM-5752.

**SALES ENGINEER**, with 20 years' experience as engineer and salesman in eastern part of U. S. Desires to connect with reliable company. SM-5753.

**FACTORY MANAGER INDUSTRIAL ENGINEER**, highly trained executive, thorough manufacturer and capable organizer, with exceptional ability to get quality and quantity production at reduced costs; user of positive methods of management, stores, production and cost control; 18 years' intensive experience in manufacturing lines, holding executive positions in plants turning out machine-shop, foundry, sheet-metal, chemical and electrical products; immediately available. Age 38. SM-5754.

**MECHANICAL ENGINEER**, Graduate M.E. and C.E. Yale. Experienced in design of special machinery, sugar and textile machinery, tractors, small-arm tools and inspection, is open for engagement as executive chief engineer, for manufacturing plants, or for research designing or purchasing. East preferred. SM-5755.

**SALES ENGINEER**, thoroughly familiar with power-house equipment, steel plants, blast stove, steel manufacture, engines, and gasoline motors. Last five years sold well-known insulating material; 35 years of age, employed at present. Position wanted with New York City as headquarters where broad engineering experience is of value. Salary \$3500 and commission. SM-5756.

**MANAGER**, supervising engineer, or superintendent; 20 years' varied experience, exceptional executive and mechanical ability, judgment and tact, technically trained engineer in addition to being practical mechanic. Can develop progressive methods and processes for quality, quantity and low cost in shops and factories in growing concern or work out new enterprises. SM-5757.

**EXECUTIVE**, sales manager and engineer. Ten years of such experience with very large electrical manufacturers; also four years as executive in automobile factory including production and branch management. Military service during war. Tank and Tractor Division Ordnance, Field rank since army discharge. Editorial work. Age 35; married. SM-5758.

**MECHANICAL ENGINEER**, with 10 years' experience in small tools. Last three years spent with large export concern as estimating engineer on both machine tools and small tools; seeks permanent connection as technical correspondent, sales engineer or estimator. Location immaterial if position satisfactory. SM-5759.

**PRODUCTION AND INDUSTRIAL ENGINEER**, age 28, with experience in time-study work, production, standardization, installation of systems, planning and routing, drafting and machine shop, desires connection with growing concern as assistant superintendent, production or efficiency engineer. Middle West preferred. SM-5760.

**CORNELL GRADUATE**, 20 years' experience in design, construction, operation and maintenance of steam electric-power plants, water works, rail-



road and shipyard plant and equipment, gas plants, and heating and ventilating systems; extensive experience in sales of heavy power equipment and construction contracts, purchase of machinery and supplies. Accustomed to handling construction work and sales negotiations. Can produce results. Successful in handling large units of labor, and in negotiations with executives of large interests. SM-5761.

**MECHANICAL ENGINEER**, Columbia, age 28, single. Five years' experience on construction work, electrical and mechanical apparatus and in all departments of large electric light and power company. Prefer position concerned with efficient generation, transmission and utilization of power. SM-5762.

**MECHANICAL ENGINEER**, Purdue University. Age 36. Wide and varied experience in management of large iron foundry and machine shops, doing heavier classes of work. Successful in handling

all classes of labor. Executive of proven ability, desires position of works manager or general manager in East. SM-5763.

**WORKS MANAGER OR SUPERINTENDENT**. Technical education, backed by 23 years' successful executive experience. Thorough technical and practical knowledge of up-to-date organization. American, 48 years old. Practical mechanic and mechanical engineer. Especially well trained in manufacture of high-precision quantity production. Served 18 months in Ordnance Department with rank of Major; good clean record. Desires to locate with progressive business, where proven ability will be recognized. SM-5764.

**INDUSTRIAL AND PRODUCTION ENGINEER**, seeks position installing routing, time-study and shop-efficiency methods to reduce costs and obtain production control. M.E. 1914, age 29; married. Six years' experience shop foreman, tooling, routing, time study, control of production, machine shop

layout. Desires future. Now employed. SM-5765.

**SUPERINTENDENT**, machinist tool maker by trade, technical graduate, wide experience organizing, planning and handling help in plants where interchangeable parts are manufactured. At present holding responsible position. Age 35; salary \$5000. Eastern territory. SM-5766.

**PRODUCTION AND EQUIPMENT ENGINEER** 28 years old, married, American; technical graduate, 7½ years' experience in machine shop, testing, designing, time study, plant equipment and new designs, factory layouts, standardization and efficiency work in production. SM-5767.

**EFFICIENCY ENGINEER**, College graduate. Mechanical and electrical engineer fifteen years. Experience in planning, maintenance, systematizing and standardizing in shop and drafting room. Desires position as Executive. Detroit, Michigan preferred. SM-5768.

## New Members of the Society

*In the October issue of MECHANICAL ENGINEERING there was published a list of those who had qualified for membership in the Society since the 1920 Year Book went to press. This was complete to August 1. The following list includes those attaining membership from that date to October 20. The grade is indicated by the symbol after the name; i. e., M-Member; A-Associate; AM-Associate-Member; J-Junior.*

AGEE, HOWARD H.—M, Allentown, Pa.  
 AINSWORTH, WILLIAM P. E.—J, Rahway, N. J.  
 ALDEN, VERN E.—AM, Baltimore, Md.  
 ALDRICH, CLARENCE E.—AM, Detroit, Mich.  
 ALLEN, ERNEST C.—AM, Milwaukee, Wis.  
 ALLEN, HAROLD A.—AM, West Dudley, Mass.  
 ALLEN, HUGH L.—AM, Toledo, Ohio  
 ALLEN, MAYNARD C.—M, Rivermiss, Mo.  
 ALTHAUSE, N. K.—AM, New York, N. Y.  
 ALTPETER, FRANK C.—M, Milwaukee, Wis.  
 ALVORD, ROBERT W.—J, Hartford, Conn.  
 ANDERSON, GUSTAVE A.—AM, New York, N. Y.  
 ANDERSON, JOHN—M, Milwaukee, Wis.  
 ANDREWS, EDWARD F.—M, Milwaukee, Wis.  
 ANGUS, ROBERT A.—M, New York, N. Y.  
 ARKILLS, MURVIN E.—M, Seattle, Wash.  
 ARMOUR, JAMES W.—J, Detroit, Mich.  
 ATWATER, WILLIAM C.—AM, Camp Funston, Kans.  
 ATWELL, OSWALD B.—AM, Chillicothe, Ohio  
 AUGUSTUS, JAMES M.—J, Cleveland, Ohio  
 AYERS, FRED W.—AM, Newark, N. J.  
 BADGE, FRANCIS JAMES—AM, Brooklyn, N. Y.  
 BAGLY, WILLIAM L.—AM, Tracy, Cal.  
 BAKER, LINNAEUS E.—M, Fort Wayne, Ind.  
 BAKER, WILLIAM—J, Toledo, Ohio  
 BANINGER, JOHN H.—M, Jamestown, N. Y.  
 BARNES, HAROLD B.—M, Denver, Colo.  
 BAUER, FRANK S.—AM, Boulder, Colo.  
 BAZLEY, WILLIAM H.—M, Cambridge, Mass.  
 BECKWITH, EARL L.—AM, Detroit, Mich.  
 BEHAR, MANUEL F.—AM, Camp Benning, Ga.  
 BELLOFF, ARTHUR B.—J, Kearny, N. J.  
 BENT, WALTER G.—M, Wealdstone, Middlesex, Eng.  
 BENTEL, ALBERT—J, Bronx, N. Y.  
 BEYER, BERTRAND E.—AM, New York, N. Y.  
 BEYER, WILLIAM W.—M, Norristown, Pa.  
 BISSELL, ROBERT W.—M, Long Beach, Cal.  
 BLAIR, GEORGE W.—M, Mishawaka, Ind.  
 BLISS, WILLIAM C.—J, St. Louis, Mo.  
 BLISS, WILLIAM D.—M, Milwaukee, Wis.  
 BLIZARD, JOHN—M, Pittsburgh, Pa.  
 BLOUCH, LEVI H.—AM, Chicago, Ill.  
 BOGART, ADELBERT N.—M, New York, N. Y.  
 BOGUSZ, WALTER J.—J, Newark, N. J.  
 BOLGIANO, CLARENCE P.—AM, Annapolis, Md.  
 BOLLER, FRANK J.—AM, New York, N. Y.  
 BOWLER, ROLAND T. E.—AM, Baltimore, Md.  
 BRAGG, JAMES W.—M, Sydney, Australia  
 BRANCHE, ARCH EUGENE—J, Cleveland, Ohio  
 BROCK, ARTHUR, JR.—M, Philadelphia, Pa.  
 BROTHERTON, WALKER P.—J, St. Louis, Mo.  
 BROWNE, BARD—AM, New York, N. Y.  
 BURKE, HENRY M.—M, North Dighton, Mass.  
 BURLINGAME, J. H.—AM, Cincinnati, Ohio  
 BURNS, ROBERT—M, Buenos Aires, Argentine, S. A.  
 CALDWELL, DAVID D.—J, Camp Pike, Ark.  
 CALKIN, JAMES S.—J, Auburn, N. Y.  
 CANDEE, ALLAN H.—AM, Milwaukee, Wis.  
 CARROLL, W. M.—M, Dayton, Ohio  
 CHAMBERLAIN, S. H., JR.—J, Endicott, N. Y.  
 CHANCE, THOMAS M.—M, Philadelphia, Pa.  
 CHAPMAN, WILLIAM H.—AM, Worcester, Mass.  
 CHRISTMAS, JOHN K.—J, Boston 11, Mass.  
 CLOTWORTHY, HARRIS A.—J, Baltimore, Md.

COE, RAYMOND SAVAGE—AM, Poughkeepsie, N. Y.  
 COLDWELL, EVERETT S.—AM, Bridgeport, Conn.  
 COLE, ROBERT T.—M, Buffalo, N. Y.  
 COLLINS, CHARLES RANSOM—J, Detroit, Mich.  
 COLSON, ERIC G.—AM, New York, N. Y.  
 CONNOLLY, EDWARD A.—J, Brooklyn, N. Y.  
 CONNELL, WM. HENRY, JR.—M, Pittsburgh, Pa.  
 CROCKETT, RENWICK ELVIN—A, Omaha, Neb.  
 CRONEY, P. ALFRED—AM, Wilmington, Del.  
 DAVIDSON, WM. H.—AM, New Orleans, La.  
 DAVIS, CHARLES C.—AM, Birmingham, Ala.  
 DAVIS, GUY ERWIN—M, Groton, Conn.  
 DECHANT, FREDERICK HAGMAN—M, Reading, Pa.  
 DETRAZ, EDWARD W.—J, Cincinnati, Ohio  
 DEWEY, WILLIAM F.—J, Housatonic, Mass.  
 DEXTER, ALBERT J.—M, Chicopee Falls, Mass.  
 DONNELLY, RUSSELL—AM, New York, N. Y.  
 DYER, ORVILLE K.—M, Buffalo, N. Y.  
 EBERLE, FRED H.—AM, New York, N. Y.  
 ECKLER, ELMER ELLSWORTH—AM, New York, N. Y.  
 EICHORN, T. F.—J, Wilmerding, Pa.  
 ELFRING, JOHN B.—AM, Cincinnati, Ohio  
 ELY, ALLEN J.—J, Elizabeth, N. J.  
 ENGELHARD, FREDERICK H.—A, Springfield, Mass.  
 ENGSTROM, KARL E.—AM, Buffalo, N. Y.  
 ERLINGER, GEORGE J.—J, New York, N. Y.  
 ERSLEW, ALBERT J.—AM, Brooklyn, N. Y.  
 EVELETH, CHARLES F.—M, New York, N. Y.  
 FASSETT, FRANCIS H.—J, Dayton, Ohio  
 FELICIANO, INDALECO—M, Calocan, Rizal, P. I.  
 FINCH, RAYMOND J.—M, Schenectady, N. Y.  
 FINNEGAN, JOSEPH B.—M, Chicago, Ill.  
 FITCH, HAROLD W.—J, Bangor, Me.  
 FITZ, GERALD JOS. A.—AM, Akron, Ohio  
 FLEDDERMANN, H. C.—M, Havana, Cuba  
 FOGEL, WILLIAM P.—AM, Dayton, Ohio  
 FOWLER, ARTHUR N.—AM, New Britain, Conn.  
 FROELICH, CLARENCE H.—M, Bethlehem, Pa.  
 FROESCH, CHARLES—J, New York, N. Y.  
 GALLALEE, JOHN M.—M, Madison, Wis.  
 GARRETT, ROBERT E.—A, Philadelphia, Pa.  
 GATES, LEROY G.—M, Bakersfield, Cal.  
 GATJE, FREDERICK C.—J, Oriente, Cuba  
 GIBBS, ALFRED W.—M, Philadelphia, Pa.  
 GILLET, JOHN—J, Toledo, Ohio  
 GISLER, JOSEPH F.—AM, Palo Alto, Cal.  
 GOLDSTON, LEONARD—J, Westhaven, N. J.  
 GOODRICH, MILAS E.—J, Stamford, Conn.  
 GREGORY, HAROLD DEL.—J, Washington, D. C.  
 HAHN, EMANUEL—J, St. Louis, Mo.  
 HAINES, C. M.—J, Middletown, Conn.  
 HALSTEAD, GEORGE BYRON—M, Havana, Cuba  
 HARLEY, EDWARD J., JR.—AM, Philadelphia, Pa.  
 HARTMAN, JOHN MILTON—AM, New Kensington, Pa.  
 HARTMAN, OSCAR H.—M, Toledo, Ohio  
 HARVEY, THERON F.—J, Schenectady, N. Y.  
 HARVEY, WILLIAM DOW—J, New York, N. Y.  
 HEALD, WILLARD R.—J, Wilmington, Del.  
 HENDERSON, GEORGE A.—M, Dover, N. J.  
 HENDRICKSON, FRED K.—M, Worcester, Mass.  
 HENNIC, WALTER A.—AM, Buffalo, N. Y.  
 HENOFER, JOHN P.—M, Charlotte, N. C.  
 HEROD, WILLIAM ROGERS—J, Schenectady, N. Y.  
 HEUSER, CHARLES J.—M, Passaic, N. J.  
 HILLEARY, WARREN—AM, New York, N. Y.  
 HINGER, A. WILLIAM—M, Philadelphia, Pa.  
 HIRSCH, ROBERT R.—J, Philadelphia, Pa.  
 HISS, GEORGE CROSBY—J, New York, N. Y.  
 HITCHCOCK, JAMES E.—J, New Haven, Conn.  
 HOERNER, JOSEPH F.—J, New York, N. Y.  
 HORN, JAMES M.—J, Hoboken, N. J.  
 HOUCK, WALTER V.—A, Snyder, N. Y.  
 HOUSTON, PAUL L.—J, Washington, D. C.  
 HOWARD, THORNTON W.—AM, Schenectady, N. Y.  
 HUME, ARTHUR P.—M, Ambridge, Pa.  
 IRISH, WILLIAM W.—M, Bloomfield, N. J.

JACKSON, J. J.—J, Newark, N. J.  
 JACOBSON, HENRY—M, Milwaukee, Wis.  
 JEHU, WALTER I.—M, Chicago, Ill.  
 JENNINGS, THEODORE W.—M, Boston, Mass.  
 JENSEN, MARTIN—J, Passaic, N. J.  
 JOHNSON, CHARLES H.—M, Kearney, N. J.  
 JOHNSTON, ARTHUR C.—M, Chicago, Ill.  
 JONES, ISAAC H.—M, Philadelphia, Pa.  
 JONES, JOHN G.—M, Rochester, N. Y.  
 JOY, WARREN W.—J, Marshalltown, Iowa  
 JUNGHANS, ERNEST L.—M, Anaconda, Mont.  
 KELLEY, W. MORTON—AM, New York, N. Y.  
 KELLOGG, R. H.—J, Ivorydale, Ohio  
 KELTING, CLARENCE A.—J, New York, N. Y.  
 KEMP, HAROLD AUGUSTUS—J, Buffalo, N. Y.  
 KENNEDY, FRANK J.—AM, Ambridge, Pa.  
 KERR, JOHN A.—AM, Kitchener, Ont., Canada  
 KILLE, GILDON E.—AM, Philadelphia, Pa.  
 KLEIN, SIDNEY—J, Salt Lake City, Utah  
 KOLB, WILLIAM K.—AM, Kapuskasing, Ont., Canada  
 KNUDSON, LOUIS R.—J, Orange, N. Y.  
 LAMB, HAROLD—M, Lowell, Mass.  
 LAMBERT, CARL F.—M, Kansas City, Mo.  
 LAROS, GERALD—J, Cincinnati, Ohio  
 LAROSCH, JOHN P.—AM, Edge Moore, Del.  
 LEDERER, E. R.—M, New York, N. Y.  
 LINDFORS, VIKING—AM, Detroit, Mich.  
 LINDHOLM, JOHN I.—AM, Bridgeport, Conn.  
 LO, YING C.—J, Tangshan, North China  
 LOUGHRAU, JOHN J.—J, Brooklyn, N. Y.  
 LUM, SAMUEL C., JR.—A, Orlando, Fla.  
 LUPFER, THEOPHILUS M.—R, AM, Detroit, Mich.  
 LYONS, DANIEL A.—J, Honolulu, T. H.  
 MCAUSLAND, ALFRED H.—J, Cleveland, Ohio  
 McCABE, CHARLES JOHN—J, Detroit, Mich.  
 MCCONNELL, EDWARD B.—M, New York, N. Y.  
 McDONALD, W. A.—M, Houston, Tex.  
 MCINTYRE, JAMES—AM, Abington, Mass.  
 MCKIBBIN, FRANK PAPE—M, Schenectady, N. Y.  
 MCQUOWN, LEONARD A.—J, Southbridge, Mass.  
 MCWORKMAN, DELAMAR—AM, Indianapolis, Ind.  
 MAHONY, RALPH GERARD—J, Chicago, Ill.  
 MARKTHALER, LEO V.—J, Elmira, N. Y.  
 MARSH, ARTHUR B.—AM, Bridgeport, Conn.  
 MAYHEW, BENJ. ALAN—J, Long Island City, L. I., N. Y.  
 MEADE, RAY—J, Ensley, Ala.  
 MEINECKE, PAUL F.—J, Corona, L. I., N. Y.  
 MERENESS, KNEELAND—J, Ithaca, N. Y.  
 MERRILL, JOSEPH L.—M, Philadelphia, Pa.  
 METCALF, LESTER G.—AM, Oleum, Cal.  
 MILNER, COBB—J, Atlanta, Ga.  
 MOIR, ROBERT B.—AM, Chicago, Ill.  
 MOULTON, ROBERT S.—J, Boston, Mass.  
 MUIR, JAMES F.—M, St. Paul, Minn.  
 MULLAN, J. J.—M, New York, N. Y.  
 MURRAY, ROBERT H.—M, Hopewell, Va.  
 NEESON, M. F.—AM, Birmingham, Ala.  
 NOLAND, ROSCOE C.—J, Bremerton, Wash.  
 NORVELL, LORENZO—AM, St. Louis, Mo.  
 O'NEIL, CHARLES B.—J, St. Louis, Mo.  
 ORR, FRED L.—J, Houston, Tex.  
 PARTRIDGE, M. E.—J, Akron, Ohio  
 PATERSON, WM. B.—J, Toronto, Ont., Canada  
 PETERSON, ADOLPH—M, New York, N. Y.  
 PETERSON, AMOS G.—AM, Buffalo, N. Y.  
 PHELPS, MERRICK W.—J, Syracuse, N. Y.  
 PHILLIPS, DANIEL W.—M, St. Louis, Mo.  
 PLACE, LOUIS V., JR.—J, New York, N. Y.  
 POHLMAN, ADOLPH—AM, Long Island City, L. I., N. Y.  
 POMEROY, RALPH E. H.—M, Canton, Ohio  
 PORTER, HARRY W.—AM, New York, N. Y.  
 POTTER, DANIEL F.—M, Buffalo, N. Y.  
 REICHENBACH, HARRY A.—M, Allentown, Pa.  
 REID, W. M.—J, State College, Pa.  
 RENTON, WILLIAM R.—M, Winchester, Mass.



RENTSCHLER, JOHN P.—AM, Hastings, Mich.  
 RICE, HOWARD C.—M, Buffalo, N. Y.  
 RICHMOND, KENNETH CALVIN—J, New York, N. Y.  
 ROBERTS, FRANK CALVIN, JR.—J, Philadelphia, Pa.  
 ROE, WALTER H.—M, Tiffin, Ohio  
 ROWLETT, RICHARD S.—J, Worcester, Mass.  
 RUFF, HERBERT—AM, Camden, N. J.  
 ST. CLAIR, CLINTON D.—J, Akron, Ohio  
 SAMANS, WALTER—M, Philadelphia, Pa.  
 SCHELLING, ROBERT FREDERICK—J, Buffalo, N. Y.  
 SCHWEIZER, CHARLES L.—J, New York, N. Y.  
 SEARS, HAROLD T.—J, Pueblo, Colo.  
 SEGUR, ASA B.—AM, Chicago, Ill.  
 SHANNON, JEAN R.—AM, Milwaukee, Wis.  
 SIMMS, FRED BERRY LARUE—M, Tracy, Cal.  
 SMITH, ALBERT T.—AM, Boston, Mass.  
 SMITH, ARCHIE—AM, Woodward, Ala.  
 SMITH, HAROLD C.—A, Chicago, Ill.  
 SMITH, HUGH—AM, Watervliet, N. Y.  
 SMITH, WALTER—M, Philadelphia, Pa.  
 SNIFFEN, WILLIAM H.—AM, Hartford, Conn.  
 SPARR, ARTHUR H.—AM, Passaic, N. J.  
 SPELLER, FRANK N.—M, Pittsburgh, Pa.

SPENCER, ALBERT W.—AM, New York, N. Y.  
 STAHL, DAVID VINTON—AM, Philadelphia, Pa.  
 STANWICK, CHAS. A.—AM, New York, N. Y.  
 STAPLES, JOHN A.—J, Plainfield, N. J.  
 STAUVERMAN, EDWARD—A, Birmingham, Ala.  
 STINSON, T. W.—AM, Newark, N. J.  
 STOTT, JAMES M.—AM, Bloomfield, N. J.  
 STRACHAN, JOHN—M, New York, N. Y.  
 STREZYNSKI, GEO. JULIUS—J, New York, N. Y.  
 SUNDAY, JOHN LAYTON—J, Philadelphia, Pa.  
 SUTTON, RUSSELL T.—AM, Detroit, Mich.  
 SWANTON, ALLEN F.—J, New York, N. Y.  
 SWENSON, FRANK J.—AM, New York, N. Y.  
 SWIFT, PAUL F.—J, Dayton, Ohio  
 SWIGERT, WILLIAM K.—M, Indianapolis, Ind.  
 THIES, WILLIAM H.—J, Wilmington, Del.  
 THOMPSON, LOUIS NEIL—J, Essington, Pa.  
 TOPPIN, W. R.—A, Chicago, Ill.  
 TROST, PAUL A.—M, New York, N. Y.  
 VAN TINE, CHARLES H.—M, Toledo, Ohio  
 VOYSEY, ALFRED—AM, Trenton, N. J.

WAGNER, ERNEST E.—J, Chicago, Ill.  
 WALKER, CHARLES A., JR.—M, Watervliet, N. Y.  
 WALL, WILLIAM C.—AM, New Britain, Conn.  
 WALTHER, PAUL H.—M, New York, N. Y.  
 WARD, WM. H.—M, Chicago, Ill.  
 WARNER, JOHN E. A.—AM, Cape Madeleine, Que., Canada  
 WARWICK, JOHN WITHROW—J, Beaver Falls, Pa.  
 WATSON, C. ROY—AM, Columbus, Ohio  
 WEAVER, HAL C.—M, Austin, Tex.  
 WEED, IRVING—M, Brooklyn, N. Y.  
 WELCH, ALBERT E.—AM, New York, N. Y.  
 WELLER, GEO. L.—M, Bladell, N. Y.  
 WHITE, BYRON E.—M, Utica, N. Y.  
 WHITE, RAYMOND E.—M, Chicago, Ill.  
 WIBON, ERIC H.—J, Bayonne, N. J.  
 WIER, JOHN B., JR.—M, New Orleans, La.  
 WILKES, FREDERICK C. D.—M, Watertown, Wis.  
 WILSON, JOHN E.—M, Chicago, Ill.  
 WITMER, GEO. S.—AM, Lima, Peru, S. A.  
 YOUNG, ARTHUR—J, Brooklyn, N. Y.

## CANDIDATES FOR MEMBERSHIP

TO BE VOTED ON AFTER DEC. 13, 1920

**B**ELOW is a list of candidates who have filed applications since the date of the last issue of MECHANICAL ENGINEERING. These are arranged geographically. Applications for change of grading are also posted. The total number of applications received and listed below is 250.

*The Membership Committee, and in turn the Council, urge the*

*members to scrutinize this list with care and advise the Secretary promptly of any objections to the candidates posted. All correspondence in this regard is strictly confidential. Unless objection is made to any of the candidates by Dec. 13, 1920, and provided satisfactory replies have been received from the required number of references, they will be balloted upon by the Council.*

### NEW APPLICATIONS

#### California

CURL, WILLIAM, T. W., Sales Engineer, Valvoline Oil Co., Los Angeles  
 MALEEV, VLADIMIR L., Designer of Oil Engines, Western Machinery Co., Los Angeles  
 REMNITZ, ALBERT W., Sales Engineer, Llewellyn Iron Works, Los Angeles

#### Connecticut

ALLEN, RALPH, Factory Manager, Acme Tool & Machine Co., Derby  
 BALDAUF, WILLARD W., Chief Draftsman, Stamford Rolling Mills, Springfield  
 BARRETT, ALFRED L., Contract Agent in New York City, The Greist Manufacturing Co., New Haven  
 BLOCH, MOSES, Designer, Yale & Towne Manufacturing Co., Hartford  
 BRONSON, GEORGE E., Assistant to Mechanical Engineer, American Brass Co., Beacon Falls  
 CHURCH, LLOYD M., Sales Manager, The Automatic Refrigerating Co., Hartford  
 GEPHART, HENRY O., Master Engineer, Winchester Repeating Arms Co., New Haven  
 JONES, WESLEY T., Assistant to Engineer of Tests, N.Y.N.H. & H.R.R., New Haven  
 MALBY, SETH G., General Manager, Ansonia Manufacturing Co., Ansonia  
 NERO, GEORGE H., Auditor Freight Receipts, New York, New Haven & Hartford Railroad Co., New Haven  
 ROGERS, JAMES J., Production Engineer, Connecticut Telephone & Electric Co., Meriden  
 ROSE, HENRY E., Master Mechanic, Stamford Rolling Mills Co., Springfield  
 SKINNER, SHERROD E., Mechanical Engineer, Lauders Fray & Clark, New Britain  
 SMITH, THEALL F., Stamford Rolling Mills Co., Springfield  
 WILLIAMS, STEPHEN L., Designer, Pratt & Whitney Co., Hartford

#### Delaware

JOHNSON, WILLS, Head of Design Division, Engineering Department, duPont Co., Wilmington  
 SEGEL, JOSEPH, Power Test Engineer, E. I. duPont de Nemours & Co., Wilmington

#### District of Columbia

BLACK, ARCHIBALD, Partner, A. & D. R. Black, Washington

WISSOTSKY, EUGENE E., Member of former Artillery Commission to U.S.A., Attached to Staff of Russian Embassy, Washington

#### Georgia

COOPER, FRANK H., Fulton Bag & Cotton Mills, Atlanta  
 DAVIDSON, JOSEPH, Chief Engineer of General Superintendent, American Machine & Manufacturing Co., Atlanta  
 GENZ, HENRY E., Assistant Professor of Mechanics, Georgia School of Technology, Atlanta  
 KAPP, CECIL A., Associate Professor of Coordination, Georgia School of Technology, Atlanta  
 KENT, LAURENCE F., Heating Engineer, Charles Heer, Atlanta  
 MCCUTCHEEN, ROY M., Captain, Corps of Engineers, United States Army, Camp Benning  
 MACINTYRE, ALEXANDER F., Agent, Fulton Bag & Cotton Mills, Atlanta  
 NOLAND, SOLIE C., Department Manager, Automatic Sprinkler Co. of America, Atlanta

#### Illinois

BLEAU, ARTHUR A., Assistant Engineer, Sanitary District of Chicago, Chicago  
 BROOKE, IRVING E., Mechanical Engineer, Lockwood Greene & Co., Chicago  
 CRYTSEY, CHARLES A., Chief Engineer, Aurora Elgin & Chicago R.R. Co., Aurora  
 MATHER, ARCHIE J., Assistant Works Manager, Walworth Manufacturing Co., Kewanee  
 MAUPIN, OVAL A., Staff Assistant to General Manager, Union Special Machine Co., Chicago  
 NASH, HOWARD B., Chief Engineer, Armour Leather Co., Chicago  
 SJOBERG, SIDNEY T., Chief Engineer, Whiting Foundry Equipment Co., Harvey  
 TIGWELL, PERCY H., Ingersoll Milling Machine Co., Rockford  
 YOUNG, LEWIS L., L. V. Estes, Inc., Chicago

#### Indiana

BUSHNELL, CLIFFORD D., Superintendent of Buildings, Purdue University, W. LaFayette  
 CARR, WALTER DE L., Superintendent, Northern Indiana Gas & Electric Co., Hammond

NEAL, GEORGE A., Manager, Northern Indiana Gas & Electric Co., Michigan City  
 WEYL, PIERCE A., Engine Assembler, Anderson Foundry & Machine Co., Anderson

#### Kansas

TAIT, RALPH S., Assistant Professor, University of Kansas, Lawrence

#### Maryland

GILL, CHARLES A., Superintendent Motive Power, Baltimore & Ohio Railroad Co., Baltimore  
 GOTTLIEB, WILLIAM, Ottemheimer Bros., Baltimore  
 PRICE, FLOYD U., Sales Engineer, Sun Oil Co., Baltimore

#### Massachusetts

ALHEIM, JOHN L., Public Accountant & Cost Engineer, Cooley & Marvin Co., Boston  
 COUPLAND, RICHARD C., First Lieutenant, U.S. Army, Boston  
 DAVIS, ALFRED S., Engineer, Stone & Webster, Inc., Boston  
 DENNIS, WOLCOTT, Instructor, Harvard University, Cambridge  
 FALES, HERBERT G., Instructor, Massachusetts Institute of Technology, Cambridge  
 FLINCHBAUGH, DONALD F., Chief Draftsman, New England Confectionery Co., Boston  
 FRASER, WARREN F., President & Engineer, Warren F. Fraser Co., Westboro  
 LA CROSSE, EMMETT, Engineer, Industrial Division, Stone & Webster, Inc., Newton  
 MACCULLOUGH, GLEASON H., Instructor in Mechanical Engineering, Worcester Polytechnic Institute, Worcester  
 MITRA, DHIRENDRA N., Engineer, General Electric Co., West Lynn  
 MORAN, JOHN W., Superintendent & Chief Engineer, Fall River Water Department, Fall River  
 TOWER, C. LOTHROP, The Babcock & Wilcox Co., Boston  
 WELLINGTON, C. OLIVER, Partner, Scovell, Wellington & Co., Boston

#### Michigan

ALVARADO, SALVADOR E., Special Machine Designer, Tractor Division, Ford Motor Co., Dearborn  
 FAGG, GEORGE E., Oakland Motor Car Co., Pontiac



MASON, WENDELL E., Teaching Assistant,  
Mechanical Engineering, University of Mich-  
igan, Ann Arbor  
NEFF, EARL C., Maintenance Engineer, Oak  
Planing Mill, Royal Oak  
PATTISON, GEORGE B., Power Plant Engi-  
ner, Smith, Hinchman & Grylls, Detroit  
PRIMEAU, BRUNO C., Assistant to Assistant  
Superintendent, Union Carbide Co.,  
Sault Ste Marie

**Missouri**

BRETZFELDER, MORRIE F., District Man-  
ager, Alvey Manufacturing Co., St. Louis

**New Jersey**

BEKKER, JOHN A., General Superintendent,  
Falstrom Co., Passaic  
BOHN, HERBERT C., Instructor, Department  
of Mechanical Engineering, Stevens Institute  
of Technology, Hoboken  
DANIEL, CHARLES M., Rutherford  
DAVIS, VERNER F., Vice-President & General  
Manager, Atlas Valve Co., Newark  
EMMONS, EDWARD N., Rate Engineer, Hyatt  
Bearing Division, General Motors Corp.,  
Harrison  
FARRELL, THOMAS A., Rate Engineer, Hyatt  
Bearings Division, General Motors Corp.,  
Newark  
HALL, LEO G., Engineer, Construction De-  
partment, Willys Corp., Elizabeth  
HARPER, WILLIAM S., Director of Produc-  
tion, Oxweld Acetylene Co., Newark  
HAZEN, SILAS A., Time Study Engineer,  
Klaxon Co., Newark  
HUTTON, ROBERT G., Manager, Wilson Weld-  
ing Repair Co., Jersey City  
LUPTON, EDGAR B., Chief Engineer, Mont-  
clair Water Co., Little Falls  
MURPHY, RALPH W. P., Contract Analyzer,  
Babcock & Wilcox Co., Bayonne  
NUGEY, ANTHONY L., Designer & Checker,  
International Coal Products Corp., Newark  
ROGERS, FRANCIS C., President & General  
Manager, John M. Rogers Works,  
Gloucester City  
RONAY, BELA, Chief Draftsman & Assistant  
to Chief Engineer, Metal Thermit Corp.,  
Jersey City  
ROOT, WARREN S., Chief Draftsman, Bethle-  
hem Shipbuilding Corp., Moore Plant,  
Elizabeth  
SMITH, HAROLD E., Sales Engineer, Wilson  
Welding Repair Co., Jersey City  
THOMSEN, WILLIAM A. V., Niles-Bement-  
Pond Co., Plainfield  
VOGEL, WILLIAM J., Checker, Babcock &  
Wilcox Co., Bayonne  
VOGELBACH, OSCAR, Hyatt Bearings Divi-  
sion, General Motors Corp., Harrison

**New York**

ABRAHAMSON, HOWARD B., 1st Assistant  
Engineer, S. S. Lake Farber, United States  
Shipping Board, New York  
ALLEN, HOWARD L., Mechanical Designer,  
Fuller Industrial Engineering Corp.,  
New York  
ANDERSON, CHARLES E., Engineer, Thomas  
E. Murray, Inc., New York  
ANDREW, FREDERICK W., Chief Engineer,  
Eisemann Magneto Corp., Brooklyn  
AUGUR, ROBERT C., Associate Editor, Ma-  
terial Handling Encyclopedia, Simmons-Board-  
man Publishing Co., New York  
BARR, SAMUEL D., Barr Radiator & Manu-  
facturing Co., Inc., Brooklyn  
BATTU, L. P. LEONCE, President, Rateau  
Battu Smoot Engineering Corp., New York  
BAUMAN, EDWARD, Werner Nygren,  
New York  
BEGLEY, RICHARD W., Assistant Superin-  
tendent Engineer, Booth American Shipping  
Corp., New York  
BEHR, HENRY C. A., In charge of Experi-  
mental & Construction Work of Dried Milk  
Machinery, The Borden Co., New York  
BERTELSEN, VALDEMAR, Mechanical Engi-  
ner, Otis Elevator Co., New York  
BRADLEY, ALEXANDER, Power Specialty  
Co., New York

BRENDLIN, HERMAN J., Assistant Chief Engi-  
neer, The Hayward Co., New York  
BRODY, ISAAC, Draftsman, Standard Con-  
veyor Co., New York  
BUCHERT, HARRY, Combustion Engineer &  
Vice President, Furnace Engineering Co.,  
New York  
CALLAGHAN, JOSEPH F., Industrial Engineer,  
American Ever Ready Works, Long Island  
City  
CARTER, WILMER H., Sales Engineer, Allied  
Machinery Co. of America, New York  
CONDIT, KENNETH H., Managing Editor,  
American Machinist, New York  
DIERCKX, JULES, Vice President & Sales  
Manager, Keller Mechanical Engineering  
Co., Brooklyn  
DUCKWORTH, RICHARD H., Tool Designer,  
Service Engineering Co., Brooklyn  
ENTENMANN, WERNER O., Assistant Me-  
chanical Engineer, The New York Steam  
Co., New York  
FITZGERALD, HARRISON W., Chief Engi-  
neer, Donner Steel Co., Buffalo  
GEDDES, CHARLES I., Chief Designing Engi-  
neer, Woold Instrument Corp., New York  
GEE, WALTER S., Member of Firm, Lybrand,  
Ross Brothers & Montgomery, New York  
GORBEA, MANUEL I., Estimator, United States  
& Cuban Allied Works Engineering Corp.,  
New York  
GOTO, KANEZO, Engineer Captain of Japanese  
Navy, New York  
GRAHAM, HUGH U., Directing Engineering  
Work, Rome Wire Co., Rome  
GRETHER, EDWARD C., Equipment Engi-  
neer, American Sugar Refining Co., New York  
GRUTZNER, FRITZ P. De La Vergne Ma-  
chine Co., New York  
HAYWARD, RALPH A., Engineer, The R. B.  
Wolf Co., New York  
HORNER, EDWIN F., Superintendent of  
Mechanical & Maintenance Engineering  
Department, American Druggist Syndi-  
cate, Long Island City  
HORNER, OLIVER A., Commercial Engineer,  
General Electric Co., New York  
HOWES, THOMAS S., Superintendent, Engi-  
neer, France & Canada Steamship Corp.,  
New York  
JACKMAN, HYMAN, Patent Draftsman, H.  
Jackman, New York  
KLEINERT, RALPH B., Partner, L. R. Mer-  
ritt & Co., New York  
KUME, JINTA, Resident Representative, Im-  
perial Government Railways of Japan,  
New York  
LEWIS, BENJAMIN L., Sales Engineer The  
Jeffrey Manufacturing Co., New York  
LIEBREICH, OSCAR P., Board of Education,  
Heating & Ventilating Division, New York  
LINCOLN, WILLIS C., Engineer, National  
Railway Appliance Co., New York  
McDONALD, WILLIAM H., Chief Engineer,  
The United Electric Light & Power Co.,  
New York  
McGINN, EDWARD J., Chief of Tool & Special  
Machine Design, De La Vergne Machine Co.,  
New York  
McWILLIAMS, JAMES E., Mechanical Drafts-  
man, Department of Plant & Structures,  
City of New York, St. George, S. I.  
MERRITT, LUCIUS R., Partner, L. R. Merritt &  
Co., New York  
METTEN, IRVING H., Superintendent Engi-  
neer, Norton Lilly Co., New York  
MONTALVO, WILLIAM W., Jr., Engineer,  
F. E. Idell, New York  
NAWRAT, STEPHEN J., Draftsman, American  
Hard Rubber Co., New York  
OLLER, RICHARD H., Assistant to Oriental  
Manager, Allied Machinery Co. of America,  
New York  
OLSEN, WILLIAM, Designing Draftsman,  
Charles E. Murray, Engineers,  
Brooklyn  
PARKER, JOHN, Eastern Manager, Milwau-  
kee Electric Crane & Manufacturing Co.,  
New York  
PEYSER, HAROLD, Principal of Pre-vocational  
School No. 95, New York

RIDINGS, WALTER A., President & General  
Manager, The Porter Cable Machine Co.,  
Syracuse  
SCHAEFER, EDWARD E., Sales Engineer, A. S.  
Cameron Steam Pumps Works, New York  
SCHRADER, LLOYD F., Designing Engineer,  
Foundation Oven Corp., New York  
SCHROEDER, FRED A., Mechanical Engineer,  
Raymond Concrete Co., New York  
SCOTT, RUMSEY W., Manager Industrial De-  
partment, Chemical National Bank,  
New York  
SERENA, MICHAEL F., Mechanical Drafts-  
man, Service Engine Co., Brooklyn  
SIEGEL, DAVID T., Sales Engineer, Siegel Tool  
Supply Co., New York  
SMARLING, CARL A., 2nd Assistant Chief  
Tool Designer, Service Engineering Co.,  
New York  
SMITH, EDWIN R., General Manager, The  
Seneca Falls Manufacturing Co., Inc.,  
Seneca Falls  
SMITH, HALFOAN, Time Study & Rate Setting  
Supervisor, Library Bureau, Iliou  
STECHER, LEWIS J., Post Graduate Work,  
Columbia University, New York  
STOELZER, WALTER H., Designer & Checker,  
Dwight P. Robinson & Co., Inc., New York  
VAN BUSKIRK, GEORGE L., Inspector, Mo-  
tive Power Department, Interborough Rapid  
Transit Co., New York  
WALLACE, JAMES H., Assistant Mechanical  
Engineer, Department of Plant and Struc-  
tures City of New York, St. George, S. I.  
WELLS, EDWARD H., Chairman of the Board  
of Directors, The Babcock & Wilcox Co.,  
New York  
WHITEFORD, ALEXANDER W., Sales Engi-  
neer, The Oxweld Railroad Service Co.,  
New York  
WILLOUGHBY, VICTOR R., Assistant General  
Mechanical Engineer, American Car &  
Foundry Co., New York  
WORTH, HAROLD H., Draftsman, New York  
Edison Co., New York  
WUNDERLICH, OSKAR, Chief Engineer,  
Porter-Cable Machine Co., Syracuse

**North Carolina**

FOSTER, JOHN M., Assistant Professor, North  
Carolina State College of Agriculture and  
Engineering, West Raleigh  
WORTH, DANIEL B., Instructor, North Caro-  
lina State College of Agriculture and En-  
gineering, West Raleigh

**Ohio**

BUCHER, PAUL, Instructor in Mechanical  
Engineering, Ohio State University,  
Columbus  
CASEY, ALBERT A., Head of Record Depart-  
ment, Cleveland Electric Illuminating Co.,  
Cleveland  
COOK, ROBERT G., Planning Engineer, Warner  
& Swasey Co., Cleveland  
FRANCIS, TENCH, Student Sales Engineer,  
Worthington Pump & Machinery Corp.,  
Cincinnati  
GRIMMER, ERNEST A., Hooven, Owens &  
Rentschler Co., Hamilton  
HUNTER, RONALD E., Assistant, Depart-  
ment of Mechanical Engineering, Ohio State  
University, Columbus  
MALONE, CHARLES J., Instructor, Training  
Course, American Steel & Wire Co.,  
Cleveland  
MAYER, CARL F., Mechanical Engineer,  
Ohio Body & Blower Co., Cleveland  
PLATZ, EDWARD H., Jr., Sales Engineer, The  
Duriron Co., Inc., Dayton  
STEWART, BURNS A., General Superintendent  
and Assistant to Director of Manufacturing,  
The National Supply Co., Toledo  
WINCHEL, GEORGE C., Mechanical Engi-  
neer, The Woodard Machine Co., Wooster

**Oklahoma**

BAKER, WILLIAM W., Construction Super-  
intendent, Sinclair Oil & Gas Co., Tulsa  
FREEBORN, FAUN W., President, F. W.  
Freeborn Engineering Corp., Tulsa



THOMAS, ROSSWELL W., Construction Foreman, Chestnut & Smith Corp., Tulsa

**Oregon**  
BODWELL, CLARENCE P., Captain, Coast Artillery Corps, Fort Stevens

**Pennsylvania**  
BARTEN, EDWARD A., Draftsman, Meigs, Bassett & Slaughter, Philadelphia  
BASSETT, BURDETT E., Aluminum Company of America, Pittsburgh  
BELLIS, WILLIAM C., Draftsman, Midvale Steel & Ordnance Co., Nicetown Works, Philadelphia  
BLAKESLEE, DORAF W., Electrical Engineer, Jones & Laughlin Steel Co., Pittsburgh  
CONLON, WILLIAM T., Test Engineer, American Engineering Co., Philadelphia  
CUSTER, GRANVILLE Y., Production Engineer, Parish Manufacturing Co., Reading  
DERIVAUX, JOSEPH, Assistant Power Plant Engineer, Oil Well Supply Co., Oil City  
DUNN, ROLAND I., Westinghouse Electric and Machine Co., South Philadelphia  
ENGSTROM, THOR, Designer, American Steel & Wire Co., Pittsburgh  
FISH, ROGER E., Sales Engineer, Erie Forge Co., Erie  
FOX, WINTERS B., Foreman of Maintenance, Fayette R. Plumb, Inc., Frankford  
HARMAN, GEORGE F., Special Machine and Tool Designer, United States Gauge Co., Sellersville  
KELSO, ERLE R., Engineer in charge Mechanical Construction, National Tube Co., Ellwood City  
McLOUGHERY, CHARLES, Consulting and Designing Engineer, Sun Co., Philadelphia  
MORRIS, EDWARD H., 2ND, Assistant Engineer, John Lang Paper Co., Philadelphia  
NAGLE, RAYMOND J., Master Mechanic, Sauquoit Silk Manufacturing Co., Scranton  
PARKES, GEORGE H., Instructor of Trade Drawing, Williamsport Industrial School, Williamsport  
PORTER, WALLACE B., Assistant Engineer Motive Power, Pennsylvania System, Williamsport  
SEARS, EDWARD A., Technical Assistant, U.S.S.B., Hog Island  
WALDO, HOLLIS T., Sales Engineer, Goulds Manufacturing Co., Philadelphia

**Rhode Island**  
ARNOLD, ROY F., B. B. & R. Knight, Inc., River Point  
GOLDTHWAIT, JOEL A., Assistant Engineer, United States Finishing Co., Providence

**Tennessee**  
KENNEDY, VERNER A., Assistant Superintendent, Lucy Manufacturing Co., Plant-2, Chattanooga

**Texas**  
BLANDFORD, JOHN B., JR., Student Engineer, Fuel Efficiency Department, The Texas Co., Port Arthur  
ROBERTSON, JOHN M., Efficiency Engineer, Galena Signal Oil Co. of Texas, Houston

**Virginia**  
GOODWIN, ERNEST G., Designer, Norfolk & Western Railway Co., Roanoke

**Washington**  
HARRIS, ERNEST NYE, Office Engineer, Puget Sound Bridge & Dredging Co., Seattle  
KENGLE, LANSFORD F., Lieutenant, U.S.N., Assistant to Inspector of Machinery, U.S.N., Todd Dry Dock and Construction Corp., Tacoma  
WINSLOW, ARTHUR M., Assistant Professor of Mechanical Engineering, University of Washington, Seattle

**West Virginia**  
SUTTELLE, VICTOR PAUL, General Sales Manager, Tirometer Valve Corp., Charleston

**Wisconsin**

GUEST, ARTHUR B., Research Engineer, French Battery & Carbon Co., Madison  
JOHN, EDWARD T., Superintendent, Curtis & Yale Co., Wausau  
LOYSTER, CARL EARL, Chief Draftsman, Globe Seamless Tubes Co., Milwaukee  
ULLMAN, MAURICE B., Graduate Apprentice, Allis-Chalmers Manufacturing Co., Milwaukee  
WALKER, WILLIAM J., Assistant Chief Engineer, Menominee Motor Truck Co., Clintonville

**Canada**

DRAESEK, ALFRED W., Chief Draftsman, The John Bertram & Sons Co., Ltd., Dundas, Ont.  
KITTREDGE, BERTIE L., Designing Engineer, Canadian Electro Products Co., Shawinigan Falls, Quebec  
TAYLOR, WILLIAM D., Combustion Engineer, Riordon Co., Ltd., Hawkesbury, Ont.

**China**

PHILLIPS, BERTRAM T., Operating Manager, Andersen, Meyer & Co., Ltd., Shanghai

**Philippine Islands**

HEACOCK, RUPERT A., Vice-President, Cranstons Engineering Co., Manila

**South America**

LAIRD, GEORGE A., General Manager, Guiana Development Co., Dutch & French Guiana

**CHANGE OF GRADING****PROMOTION FROM ASSOCIATE****New York**

VAN GORDER, WINFRED H., Factory Manager, Automatic Ticket Selling and Cash Register Co., New York

**PROMOTION FROM ASSOCIATE-MEMBER****Alabama**

FEAR, FRANK G., Draftsman, Tennessee Coal Iron & Railroad Co., Ensley

**California**

ROBERTSON, DONALD M., Mechanical Engineer, The Holt Manufacturing Co., Stockton

**Illinois**

JACKSON, ELWELL R., Assistant Chief Engineer, Rock Island Arsenal, Rock Island

**Maryland**

BUBAR, HUDSON H., Maintenance and Construction Engineer, Mutual Chemical Co. of America, Baltimore

**Minnesota**

MOYER, AMOS F., Motor Engineer, Toro Manufacturing Co., Minneapolis

**New York**

ARMSTRONG, GEORGE S., Consulting Industrial Engineer, The Robeson Cutlery Co., Perry  
BROWN, HENRY ABBOT, Vice-President and Consulting Engineer, A. C. Towne, Inc., Buffalo  
COX, JAMES W., JR., Consulting Textile Engineer, New York  
NESTLER, PETER J., Engineer, The M. W. Kellogg Co., New York  
WINGE, OTTO C., Mechanical Engineer, United States and Cuban Allied Works Engineering Corp., New York

**Pennsylvania**

BILLINGS, J. HARLAND, Professor, Mechanical Engineering, Drexel Institute, Philadelphia

**Wisconsin**

LINDEMANN, WALTER C., Chief Engineer and Factory Manager, A. J. Lindemann & Hoverson Co., Milwaukee

**South Africa**

ROGERS, JOHN D., Technical Representative, Baldwin Locomotive Works, Johannesburg

**PROMOTION FROM JUNIOR****Connecticut**

HITT, FRED, Chief Inspector, Pratt and Cady Co., Inc., Hartford

**Georgia**

GIACOMINO, JOSEPH L., Assistant Industrial Engineer, Fulton Bag and Cotton Mills, Atlanta

**Illinois**

BARRY, THOMAS J., Assistant Chief Engineer, Dayton-Dowd Co., Quincy  
HOWARTH, JACOB M., Assistant Chief Engineer, Marshall Field & Co., Chicago  
MALCOLMSON, WILLIAM J., Western Electric Co., Chicago

**Maryland**

BURRILL, HAROLD G., Assistant to Superintendent Steam Stations, Consolidated Gas Electric Light & Power Co., Baltimore

**Massachusetts**

BALDWIN, ALDEN W., Statistical Assistant to General Sales Manager, Gilbert & Barker Manufacturing Co., Springfield

**New Jersey**

PURDY, ASA R., Standard Paint Co., Bound Brook

**New York**

ARNSTEIN, LEONARD A., Superintendent, Imperial Metal Manufacturing Corp., Long Island City  
FINCH, CECIL C., Vice-President and Superintendent, The Broadalbin Knitting Co., Broadalbin  
GOLDBERG, MONROE S., President, Master Waterproofers, Inc., New York  
SOSSONG, RAY A., General Superintendent, Acetylene Plants, Air Reduction Co., New York

**Ohio**

RANSOHOFF, NATHAN, Treasurer and General Manager, The Ideal Concrete Machinery Co., Cincinnati

**Oklahoma**

BERNARD, HAROLD B., General Superintendent, Gasoline Department, Sinclair Oil and Gas Co., Tulsa  
MILES, DALE S., Chief Draftsman, Empire Gas and Fuel Co., Bartlesville

**Pennsylvania**

LOEB, LEO, Mechanical Engineer, Day & Zimmermann, Inc., Philadelphia  
SNAVELY, A. BOWMAN, Hershey Chocolate Co., Hershey

**Texas**

NETHERWOOD, JOSEPH S., Mechanical Engineer, Southern Pacific Lines, Houston

**West Virginia**

BADOWSKI, ALFRED, Manager, Tirometer Valve Corp., Charleston

**England**

WOLTON, JOHN DAVID, Chief Engineer, Office of Ingersoll-Rand Co., London

**France**

MERRIAM, CARROLL F., Paris

**Japan**

ISHIMURA, LYUHO S., Engineer, The Nippon Battery Co., Ltd., Kyoto

**SUMMARY**

New Applications.....	214
Change of Grading:	
Promotion from Associate.....	1
Promotion from Associate-Member.....	13
Promotion from Junior.....	22
TOTAL.....	250